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Canadian Petroleum Industry
1991 Monitoring Report

First Six Months

Canada

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The Honourable Jake Epp
Minister of Energy, Mines and Resources
Ottawa, Ontario

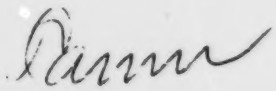
Dear Minister:

I am pleased to submit this report which describes the financial performance of the oil and gas industry in Canada during the first six months of 1991. The report is based on data from 145 companies, accounting for some 90% of total revenues of the petroleum industry. Therefore, the data reflect fairly the performance of the entire industry in Canada. During the first six months of 1991, as compared with the corresponding period of 1990, industry cash flow dropped 15% to $3.4 billion and net income fell $1.1 billion from a profit of $815 million to a loss of $260 million.

Both upstream and downstream segments of the industry recorded lower net income and cash flow. Higher operating costs in the upstream segment and significantly lower downstream margins were major causes of the poor financial performance of the petroleum industry. As a result, the rate of return on average shareholder's equity was an annualized negative 1.2%. Preliminary third quarter results do not show signs of improvement.

Despite the fall in cash flow, however, the industry increased overall capital expenditures by 19% to $4.6 billion, largely on the strength of commitments to major projects such as the Caroline gas field development, Hibernia, Cohasset/Panuke and the Bi-Provincial Upgrader. This increase, together with the drop in cash flow, resulted in a reinvestment rate of 134%, compared with the reinvestment rate of 96% in the first half of 1990.

Respectfully submitted,



Pierre Camu
Chairman

December 18, 1991

New and Noteworthy

New information is presented in this Monitoring Report and, as in the past, it is crucial that the report be read with a number of caveats to which attention is drawn under "Noteworthy".

New

- Included in this report for the first time is a section on employment levels within the upstream part of the industry for the period 1985 to 1990.
- A chapter on selected financial results of the petroleum industry for the third quarter and the first nine months of 1991 has been included in this report.

Noteworthy

- Downward revisions to the rates of return on upstream and downstream capital employed were made to data for the full year 1990 following the receipt of revised data on the segmented allocation of expenses. Previously these expenses have been reported as a corporate item and included with 'Other Canadian' activities. The total rate of return was not changed.
- Prior to January 1, 1991 the federal tax on petroleum products was composed of the Federal Sales Tax (FST) and the Federal Excise Tax (FET). On January 1, 1991 the FST was replaced by the Goods and Services Tax (GST). The GST was set at 7% of the retail price of all petroleum products. While the FST was calculated at 13.5% of an average wholesale price, the GST is calculated on the value including FET, provincial taxes and retailers' mark-up, in addition to the base on which the FST was levied. For financial reporting purposes, the FST was included in both revenues and expenses. The GST was excluded from the financial statements, according to generally accepted accounting principles.
- Appendix A1 'Year in Review' sets out in detail events worthy of note.
- Many numbers in the body of the report are rounded to improve readability. Percentage changes, however, are calculated on the basis of detailed figures shown in Appendix B.
- While 156 companies have reported to the PMA (see Appendix E), this report is based on data from 145 companies. Eleven small companies have been excluded due to the lack of comparable data for the preceding period.

- Restructuring of the Canadian petroleum industry continued in 1991, due to a number of acquisitions and mergers. Prominent mergers and acquisitions include:

— Co-enerco Resources Ltd. purchased oil and gas assets in northwestern Alberta from Amoco Canada Petroleum Company Ltd., Encor Inc., and Maligne Resources Limited.

— Ladd Exploration changed its name to Amax Petroleum of Canada Ltd.

— Chauvco Resources Ltd. purchased Esso Resources Canada Limited's interests in the Rycroft, Bellshill Lake unit and Thompson Lake pool.

— Paragon Petroleum Limited, PPC Oil & Gas Corp. and Alterio Resources Limited merged, resulting in the creation of Paragon Petroleum Corporation.

— Inverness Petroleum Ltd. purchased Pancontinental Oil Ltd.

— Coseka Resources Limited became a wholly-owned subsidiary of North Canadian Oils Ltd.

— NOVA Petrochemicals Inc. changed its name to Novacor Chemicals (Canada) Ltd./Novacor Chimie (Canada) Ltée. The Alberta Gas Ethylene Company amalgamated with Novacor Chemicals Ltd. to form Novacor Chemicals Ltd., and Polysar Petrochemicals Ltd. changed its name to Novacor Petrochemicals Ltd.

— Polysar Hydrocarbons Ltd., Hi-Point Industries Ltd. and Genesis Pipeline Canada Ltd. amalgamated to form Genesis Pipeline Canada Ltd.

— Lasmo Canada Inc. purchased Petro-Canada's 12.7% working interest in the Nipisi Gilwood Unit No. 1.

— Petro-Canada Limited became a public company, with 19.5% of its shares being traded.

— Westcoast Energy Inc. sold its 10.5% stake in Ranger Oil Limited.

— Poco Petroleums Ltd. acquired Voyager Energy Inc.

— Sherritt Gordon Limited purchased the Canadian assets of Canada Northwest Energy Limited.

— Dorset Exploration Ltd. and Husky Oil Ltd. purchased various assets from Esso Resources Canada Limited.

— NAL Resources Ltd. acquired assets from Northstar Energy Corporation.

— Shell Canada Ltd. acquired Gulf Canada Resource's Caroline assets.

— The City of Medicine Hat purchased producing assets from Buttes Resources Canada, Ltd.

— Ocelot Industries Ltd. acquired oil and gas assets from Lone Pine Resources Ltd.

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Summary and Highlights

General Economic Background

The Canadian economy showed the effects of the recession with a fall in real Gross Domestic Product (GDP) of 1.5% between the first half of 1990 and 1991. Business fixed capital formation dropped at an annual rate of 6.4% to $136 billion. In terms of 1986 dollars, real personal expenditures on consumer goods and services were unchanged at $337 billion. Total government investment rose by 3% to $16 billion while government current expenditures increased fractionally (less than 0.1%) to $108 billion . The value of imports dropped 2.3% and exports fell 3.3% from corresponding 1990 levels.

The introduction of the Goods and Services Tax (GST) affected the Consumer Price Index (CPI) in the first half of 1991. Consumer prices rose at an annual rate of 6.4% in 1991, up from 5.4% in the first six months of 1990. The Petroleum and Coal Prices Index deflated at an annual rate of 4.4% in the first half of 1991, versus negative 0.8% in 1990.

The average rate of unemployment in 1991 rose to 10.2% from 7.5% in the first half of 1990. Total Canadian employment fell to 12.3 million from 12.4 million in 1990.

Financial Performance

Total Operations

- Profits: *Net income from total operations fell $1.1 billion from a net profit of $815 million in the first six months of 1990 to a net loss of $260 million in the same 1991 period.* Higher operating costs, feedstock costs and non-cash charges more than offset lower interest expenses, and reduced current and deferred income taxes.

- Total net income for foreign-controlled companies fell $810 million in the first half of 1991 to a loss of $250 million as lower net income was recorded for all business segments. Net income for Canadian-controlled companies dropped $260 million to a loss of $5 million in the first six months of 1991 due to decreases in upstream and downstream operations, more than offsetting increases in 'Other Canadian' and foreign activities.

- *The rate of return on shareholders' equity* for the total Canadian petroleum industry was an annualized negative 1.2% in the first six months of 1991 against a positive 4% in the corresponding 1990 period. The five-year average rate of return for the period ending June 1991 increased to 4.5% from an average of 3.2% for that ending in December 1990. *The return on capital employed* by the Canadian petroleum industry in the first half of 1991 declined to 1.5% from 4.1% in 1990.

Upstream Operations

- *Revenues from upstream operations* rose 4% to $9.2 billion in the first six months of 1991 mainly as a result of hedging activities. In addition, the negative effect of lower crude oil production offset higher realized crude oil prices and increased marketable natural gas production was more than offset by the impact of lower prices. *Upstream net income fell* 41% to $250 million in the first six months of 1991 over the corresponding 1990 period. The reduction was due to higher operating costs, non-cash charges and current income taxes more than offsetting lower interest charges and deferred income taxes. Cash flow declined 3% to $3 billion.

Downstream Operations

- *Total downstream sales revenues* decreased 4% to $14.7 billion as a result of a decline in overall Canadian demand and the replacement of the Federal Sales Tax (FST) by the Goods and Services Tax (GST). The GST, on the other hand, has been excluded from companies revenues in accordance with generally accepted accounting principles. The FST was included in both revenues and expenses. *Net income* fell $620 million from a profit of $315 million in the first half of 1990 to a loss of $305 million in the same 1991 period due to the combined weakness of the oil products and petrochemical business segments.

- *Net income for oil products operations* fell $480 million from a profit of $175 million in the first six months of 1990 to a loss of $300 million in the same period of 1991 causing the return on capital employed to decrease to a negative 2.4% from 4.1% in the first half of 1990. Cash flow declined 90% to $55 million in the first half of 1991.

Sources and Uses of Funds

Internal Cash Flow

- *Internal cash flow from total operations decreased 15% to $3.4 billion* in the first six months of 1991 due to higher operating and increased feedstock costs. Cash flow decreased in all industry segments with the single exception of 'Other Canadian' operations.

Net External Sources

- *Net external sources of funds provided $1.6 billion in the first half of 1991 vs. $1 billion in the first six months of 1990.* New long-term debt exceeded redemptions by $1.6 billion compared with $415 million of net new long-term debt in the first half of 1990. Redemptions of equity, net of new issues, was $15 million in the first half of 1991, compared with $625 million in new equity, net of repurchases, in the first six months of 1990.

Discretionary Uses

- In the first half of 1991, the industry increased its net capital outlay by 19% to $4.6 billion. Dividend payments fell 6% from $780 million to $735 million. In the first six months of 1991, the impact of the sale of assets can be seen in the excess of 'All Other Sources' over 'All Other Uses.' The excess of 'All Other Uses' over 'All Other Sources', in the first half of 1990 resulted from the purchase of assets and takeover activity. The net draw-down of working capital of $130 million in the first half of 1990 compared to a net increase of $150 million in the working capital position in 1991.

Capital Expenditures

- *Total Capital Expenditures* in the first six months of 1991 increased 19% to $4.6 billion, with domestic expenditures increasing 20% to $4.3 billion and outlays abroad rising 8% to $335 million. Upstream spending, representing 81% of the total, rose 26% to $3.8 billion in 1991.

- *Exploration Expenditures in Canada* fell 4% to $1.4 billion in the first half of 1991, with expenditures decreasing by less than one percent in the provinces and decreasing 42% on Canada Lands. Expenditures on Canada Lands accounted for 6% of the total vs. 9% in the first six months of 1990. Outlays by foreign-controlled companies were 2% lower in the first half of 1991 than in 1990, while those for Canadian-controlled companies fell by 6%.

- *Downstream Expenditures* declined 4% to $405 million in the first six months of 1991 over 1990. Decreased expenditures for refineries more than offset increased spending on petrochemical plants and marketing outlets.

Reinvestment Rates

- Net capital expenditures absorbed 134% of the industry's internal cash flow in the first half of 1991, up from 96% in 1990. Upstream capital expenditures were 124% of cash flow, up 29 percentage points from the first six months of 1990.

Dividends

- *Dividends decreased 6% to $735 million in the first half of 1991.* Dividends by Canadian-controlled companies decreased 19% to $295 million. Payments by foreign-controlled companies rose 6% to $440 million.

Comparative Performance: Petroleum and Other Industries

Net Income

- According to Statistics Canada data, the petroleum industry's net income from Canadian operations — exclusive of Crown corporations' results — decreased $1.3 billion from a profit of $1.2 billion in the first half of 1990 to a loss of $100 million in the first half of 1991. This compares with an 84% decrease in net income to $1.7 billion for all other non-financial industries.

Capital Expenditures

- The petroleum industry's capital expenditures in Canada increased 22% in the first six months of 1991 over 1990. Capital expenditures of non-financial industries excluding petroleum decreased 5%. As a result, the petroleum industry represented 15% of total non-financial industries' capital expenditures, up 3 percentage points from the first half of 1990.

The following summaries and the related sections of the report compare the full year 1990 with the full year 1989 for the subjects mentioned. The underlying data were not available when the 1990 Monitoring Report *was prepared.*

International Flows of Funds: 1990 vs. 1989

The international flows of funds related to long-term capital movements to and from the Canadian petroleum industry resulted in a net outflow of $1.2 billion in 1990. A net outflow of $2 billion in the current account more than offset a net inflow of $715 million in the capital account.

Interest and dividend outflows (net of inflows) of $1.1 billion and $680 million respectively, coupled with net external business service payments of $195 million, resulted in an overall net current account outflow of $2 billion.

Capital Structure: 1990 vs. 1989

Total capital employed in the Canadian petroleum industry was $65.4 billion in 1990, up $2.7 billion (4%) from the level recorded in 1989. Long-term debt represented approximately 35% of

industry capitalization in 1990 and equity, 65%, a 3 percentage points increase in the equity component compared to the previous year.

Income Tax-Related Data: 1990 vs. 1989

Taxable income of the petroleum industry increased 42% to $3.3 billion in 1990 from $2.3 billion in 1989 due to a strong upstream performance which benefitted from higher crude oil prices during the Gulf crisis. Consequently, income taxes payable to federal and provincial governments rose 70% to $1.2 billion in 1990 from $675 million in 1989.

Upstream Employment: 1985-1990

Employment within the conventional upstream segment of petroleum companies has fallen 12% (4,375 workers) from a total workforce of 35,170 in 1985 to 30,795 workers in 1990. The decline in crude oil and natural gas prices caused companies to search for operating efficiencies and to cut costs.

The last summary provides an analysis of the industry's financial results using third quarter Statistics Canada data.

Additional Financial Results

Net income from total operations declined $740 million in the third quarter of 1990 to $15 million in the corresponding 1991 period. Internal cash flow decreased 31% to $1.5 billion. Net income for the first nine months fell $1.8 billion to a loss of $245 million over the same 1990 period. Cash flow dropped 21% to $4.9 billion.

1

Financial Performance

Total Operations: Net Income and Cash Flow

Petroleum industry revenues were unchanged at $26.1 billion in the first six months of 1991 over the corresponding 1990 period. While upstream revenues rose 4% as a result of hedging activity, downstream revenues dropped 4% due to reduced demand and the replacement of the Federal Sales Tax (FST) by the Goods and Services Tax (GST). While the FST was included in both revenues and expenses, the GST has been excluded from companies' revenues and expenses in accordance with generally accepted accounting principles. Consequently, a discontinuity in downstream revenue levels exists between the two reporting periods.

Net income from total operations fell $1.1 billion from a net profit of $815 million in the first six months of 1990 to a net loss of $260 million in the same 1991 period. All industry segments recorded lower profits. Upstream profits fell 41% ($175 million) to $250 million due to higher operating costs, non-cash charges and current income taxes. Downstream net income dropped $620 million from a profit of $315 million in the first half of 1990 to a loss of $305 million in 1991 in light of a decline of $480 million in the net income of the oil products segment, and a fall of $145 million in the petrochemical segment's net income (Appendix B9).

Extraordinary asset sales in the first half of 1990 kept 'Other Canadian' operations' net loss for that period to $15 million. Reduced gains on the sale of assets in the first half of 1991 resulted in higher losses of $275 million. Profits from foreign operations fell 19% ($15 million) to $70 million in the first half of 1991 over the comparable 1990 period.

Internal cash flow from all business segments decreased 15% ($600 million) to $3.4 billion. Higher feedstock costs (up 13%), and operating costs (up 11%) more than offset other cost reductions, like the elimination of the FST in 1991, lower interest charges (down 10%), and reduced current income taxes (down 47%).

Table 1.1
Overview of Total Operations in billions of dollars[a]
First Six Months

	1990	1991	Change	Change %
Total Revenues	**26.1**	**26.1**	**—**	**—**
less:				
Operating Costs	6.0	6.7	0.7	11
Interest Expenses	1.2	1.1	- 0.1	- 10
Non-Income Taxes and Royalties	4.0	3.1	- 0.9	- 22
Other Cash Expenses	10.3	11.5	1.2	12
Current Income Taxes				
Federal[b]	0.5	0.3	- 0.2	- 42
Provincial	0.1	—	- 0.1	- 69
Internal Cash Flow	**4.0**	**3.4**	**- 0.6**	**- 15**
less:				
Write-Offs[c]	3.2	3.8	0.6	19
Deferred Taxes	—	- 0.1	- 0.1	—
Net Income before Extraordinary Items	0.8	- 0.3	- 1.1	—
Extraordinary Items	—	—	—	—
Net Income	**0.8**	**- 0.3**	**- 1.1**	**—**

Notes:
(a) Figures may not add due to rounding. See Appendix B1 for detail by operating segment.
(b) Federal Income Tax includes Large Corporations Tax.
(c) The components of 'write-offs' are non-cash charges and exploration and development expenditures charged to current operations.

Net Income by Sector

Net income for the petroleum industry fell $1.1 billion, from a profit of $815 million in the first half of 1990 to a loss of $260 million in 1991. While net income of Canadian-controlled companies declined $260 million to a loss of $5 million, net income of foreign-controlled companies dropped $810 million to a loss of $250 million.

Canadian-controlled companies' net income increases from 'Other Canadian' and foreign operations were insufficient to offset profit declines in both upstream and downstream operations. The fractional increase in overall revenues together with reduced federal sales taxes, interest charges and current income taxes were more than offset by higher operating costs, increased feedstock costs (cost of goods sold) and higher deferred income taxes. As a result, net income declined $260 million, to a loss of $5 million in the first half of 1991. Cash flow for this sector dropped 7%, to $1.7 billion in the first six months of 1991 over the corresponding 1990 period (Appendix B6).

Net income of *foreign-controlled companies* fell $810 million in the first half of 1991. Lower net income was recorded for all business activities. The impact of a decrease in overall revenues, higher cost of goods sold, operating costs and non-cash charges more than offset lower current and deferred income taxes, the elimination of the FST and lower interest charges.

A number of companies treated gains on the sale of assets as negative write-offs in the first six months of 1990, reducing non-cash charges to particularly low levels. While these types of gains also occurred in 1991, they were not as large as in 1990. In addition, asset write-offs reported as non-cash items occurred in 1991. Cash flow, unaffected by write-offs, declined 22% to $1.7 billion in the first six months of 1991 over the same 1990 period (Appendix B7).

Table 1.2
Net Income by Sector and Segment in billions of dollars
First Six Months

	1990	1991	Change	Change %
Canadian-Controlled Companies				
Upstream	0.2	0.1	-0.1	-60
Downstream	0.1	-0.1	-0.2	—
Other[a]	-0.1	—	0.1	—
Total Canadian-Controlled	**0.3**	**—**	**-0.3**	**—**
Foreign-Controlled Companies				
Upstream	0.2	0.2	—	-21
Downstream	0.2	-0.2	-0.4	—
Other[a]	0.1	-0.2	-0.3	—
Total Foreign-Controlled	**0.6**	**-0.3**	**-0.9**	**—**
Total Industry	**0.8**	**-0.3**	**-1.1**	**—**

Note:
(a) Comprises net income generated by foreign activities and 'Other Canadian' operations. For more detail see Appendices A12, B6 and B7.

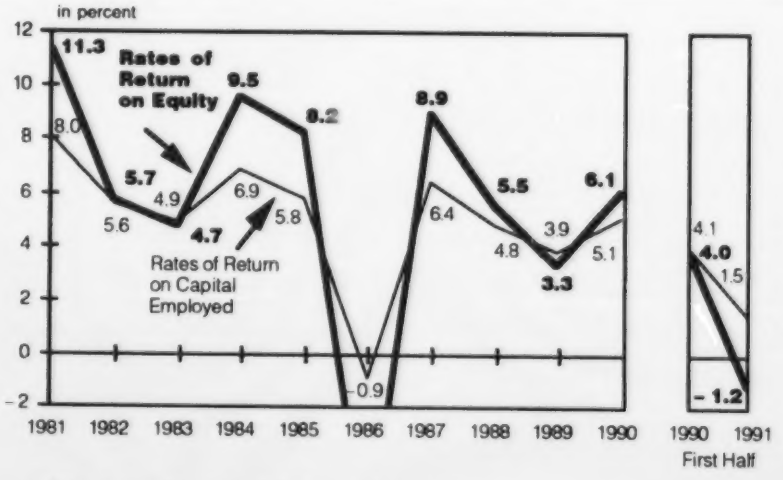
Rates of Return

Return on Equity

The rate of return on average shareholders' equity for the total Canadian petroleum industry was an annualized negative 1.2% in the first six months of 1991 against an annualized positive 4% in the same 1990 period. The reported decline in profitability was caused by higher operating costs, non-cash charges and cost of goods sold. With a loss of $5 million in the first half in 1991, Canadian-controlled companies recorded a zero return on equity.

Foreign-controlled companies, registering a loss of $250 million, had an annualized negative 2.4% return on equity for the first half of 1991. However, the industry's average rate of return on equity for the five-year period ending in June 1991 increased to 4.5% from an average of 3.2% for the period ending in December 1990 (Appendix A13).

Chart 1.1
Rates of Return: Petroleum Industry



Rate of return on equity extends to - 7.5 for 1986.

Table 1.3
Rates of Return by Sector and Segment in percent
First Six Months

	Canadian-Controlled		Foreign-Controlled		Total Industry	
	1990	1991	1990	1991	1990	1991
Return on Equity						
Total Operations	2.7	0.0	5.2	- 2.4	4.0	- 1.2
Return on Capital Employed						
Total Operations	3.7	2.2	4.4	0.8	4.1	1.5
Canadian Operations	3.7	2.2	4.2	0.6	4.0	1.3
Upstream Operations	3.6	2.5	2.8	2.4	3.1	2.5
Downstream Operations[a]	2.7	- 2.2	4.9	- 2.6	4.1	- 2.4

Note:
(a) Downstream, in this table, represents oil products' operations only, i.e. it excludes petrochemical and other downstream operations.

Return On Capital Employed

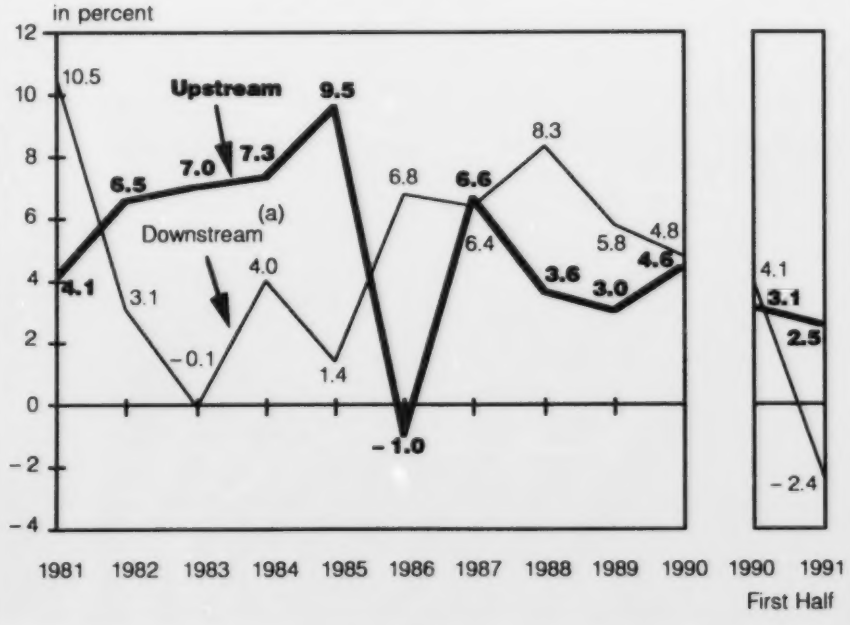
The return on average capital employed by the Canadian petroleum industry in the first six months of 1991 declined to 1.5% from 4.1% in the first half of 1990. The return on capital employed averaged 4.3% for the five–year period ending in June 1991 vs. 3.9% at the end of 1990. Upstream return on capital employed declined to 2.5% from 3.1% in the first half of 1990, while the downstream return dropped to a negative 2.4% in the first six months of 1991 from 4.1% in the same1990 period.

Foreign–controlled companies reported a 0.8% return on capital employed for total operations in the first six months of 1991, down from 4.4% in 1990. The upstream segment of this sector saw its return on capital employed decline from 2.8% to 2.4% in the first half of 1991, while the downstream return fell from 4.9% in the first half of 1990 to a negative 2.6% in 1991.

The *Canadian–controlled* sector's rate of return on capital employed fell to 2.2% in the first six months of 1991 from 3.7% in 1990. The rate of return on upstream capital employed dropped to 2.5% from 3.6% in the first half of 1990. Downstream rate of return on capital employed fell to a negative 2.2% in the first six months of 1991 from 2.7% in 1990.

Chart 1.2

Rates of Return on Capital Employed: Upstream and Downstream

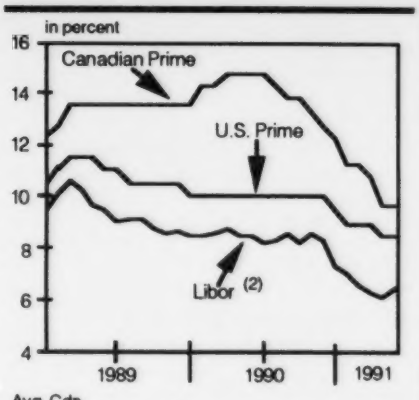


Note:
(a) Oil products operations.

Interest Coverage[1]

During the first half of 1991, net income before taxes and interest was insufficient to cover interest charges. For the industry overall, income before taxes, extraordinary items and expensed interest fell to 0.9 times total interest charges, both capitalized and expensed, down from the 2.1 times coverage in the first six months of 1990. This deterioration in interest coverage was caused by the 60% decrease in industry income before interest and taxes, a drop which was only partially offset by a 9% decrease in overall interest charges. Lower domestic and foreign interest rates in the first half of 1991 brought about a decrease in interest charges. Also contributing to the decrease was the reduction of long-term debt[3] that occurred late in 1990 following the sale of assets by a number of companies.

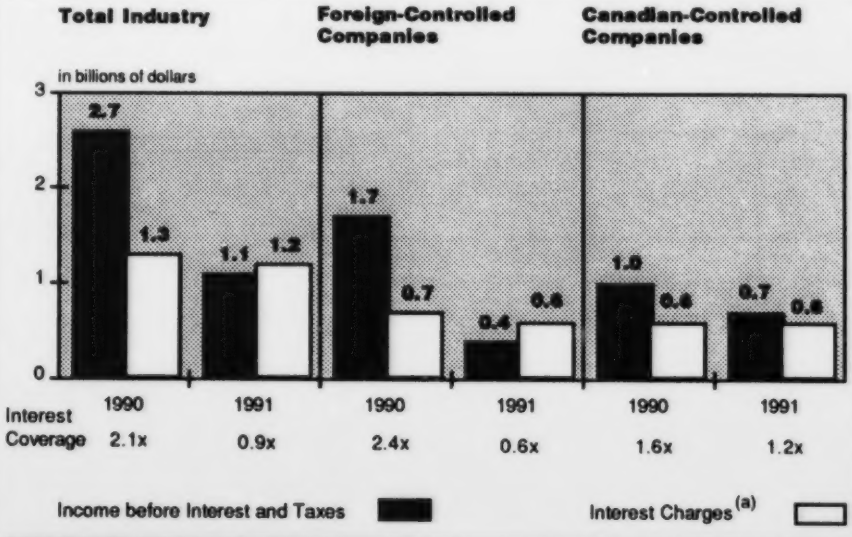
Chart 1.3
Interest Rates: Canadian and U.S. Prime Rates and Libor



Avg. Cdn. Prime	13.17	13.50	14.38	13.75	10.83
Avg. U.S. Prime	11.17	10.58	10.00	10.00	8.92
Avg. Libor	9.92	8.90	8.57	8.36	6.58

Source: Bank of Canada

Chart 1.4
Comparison of Interest Charges with Income before Interest and Taxes
First Six Months



Note:
(a) Interest charges shown include both expensed and capitalized amounts. See Appendix A18 for more detail. Deferred interest, which was significant for a number of foreign-controlled companies, is not included.

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(1) This analysis of interest coverage relates to total industry activity since there is neither consistency nor uniformity in the way companies allocate interest expenses among the various business segments – upstream, downstream, other Canadian and foreign.
(2) The London Inter-Bank Offer Rate (LIBOR) is defined as the rate at which funds are offered in London to first-class international banks.
(3) 'Other Long-Term Liabilities' increased as a result of a corporate restructuring that occurred in the latter half of 1990.

Net income before taxes and interest for Canadian–controlled companies was $680 million in the first six months of 1991 — down 29% from the level of $955 million recorded in the first half of 1990. Interest charges decreased 6% to $550 million, primarily caused by repayment of long-term debt in 1990 following the sale of assets and lower interest rates both domestic and foreign. Consequently, the interest coverage for this sector decreased to 1.2 times in the first half of 1991 from 1.6 times in the same 1990 period.

Foreign–controlled companies' interest coverage fell to 0.6 times in the first six months of 1991, from 2.4 times in 1990 as a result of a 78% decrease in income before taxes and interest, compared with a 12% decrease in interest charges. The reduction in interest charges was due to the pay down of long–term debt following the sale of assets and lower interest rates.

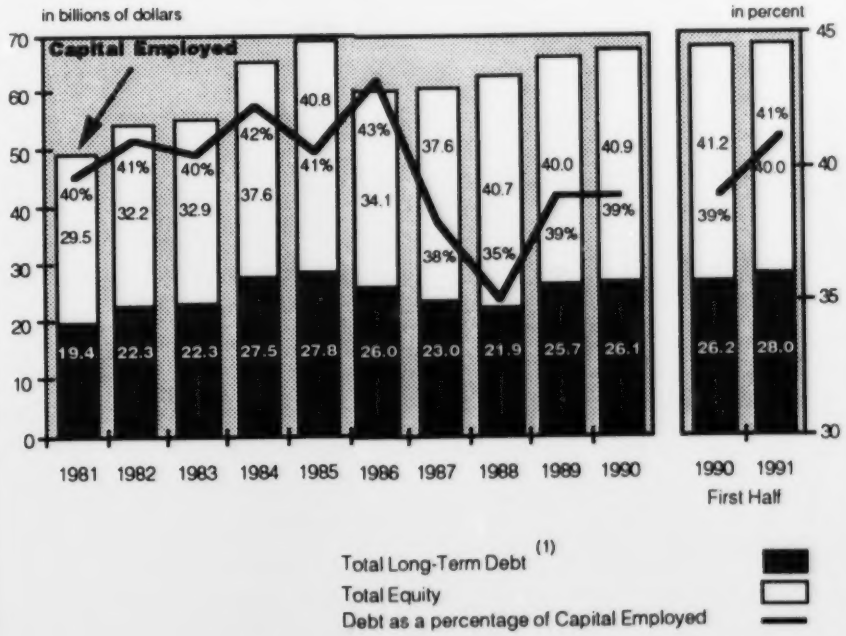
Capital Employed

Long–term debt as a percentage of capital employed was 41% in the first half of 1991, up from 39% recorded at the end of 1990. This change resulted from the combination of increased long-term debt and reduced equity (Appendix B13).

Long-term debt increased in the first half of 1991, partially as a result of a company drawing on its line of credit and placing the capital in short-term money instruments. In addition, long-term debt rose following financial and operational reorganizations, and the spin-off of a petroleum company which assumed the long-term debt previously held by the parent company. Also, long-term debt was raised to finance major capital projects.

Shareholders' equity declined as a result of the redemption of preferred shares and a drop in retained earnings. The latter reflects the net loss position of the industry during the first half of 1991.

Chart 1.5
Comparison of Long–Term Debt to Equity



(1) Includes other long–term liabilities.

Net Income by Company Group

Integrateds and Refiners

A total of 16 companies grouped into the category 'Integrateds and Refiners' made up almost all of the downstream segment in terms of revenues, and accounted for 31% of upstream revenues. Net income for the group decreased $940 million from a profit of $615 million in the first half of 1990 to a loss of $325 million in the corresponding 1991 period.

While all business segments recorded reduced profits, declines were particularly large for the upstream, downstream and 'Other Canadian' operations. The drop in profits for the latter category was due to a combination of gains recorded on the sale of assets in the first six months of 1990, against write-offs occurring in the same 1991 period. For this industry segment, non-cash charges increased $420 million, more than offsetting the reduction of $100 million in interest charges. Interest charges declined due to lower interest rates and as a result of a number of companies selling oil and gas assets and paying down debt (Appendix B2).

Over the years, integrated companies in this sector — having both upstream and downstream operations — have raised a considerable amount of debt for takeover activities and for capital spending. The associated interest charges have been allocated to 'Other Canadian' operations resulting in lower profits in this industry segment. Had the interest charges been distributed more evenly by industry segment — rather than as a corporate expense — net income for both upstream and downstream operations would have been lower.

Overall internal cash flow for this company group declined 32% ($490 million) to $1 billion in the first six months of 1991 over the same 1990 period.

Oil and Gas Producers

The 129 'oil and gas producers' are active almost exclusively in upstream operations. Net income declined 66% ($130 million) to $65 million in the first half of 1991 over the same 1990 period. The fall in profits in upstream and foreign operations more than offset improvements in the smaller downstream and 'Other Canadian' activities.

The decrease in the group's net income resulted from higher operating costs and current income taxes which more than offset improved revenues due to higher crude oil prices and increased sales of marketable natural gas. Internal cash flow decreased 4% ($110 million) to $2.4 billion in the first half of 1991 over 1990 (Appendices B3 to 5).

Table 1.4
Net Income by Company Group in billions of dollars
First Six Months

	1990	1991	Change	Change %
Integrateds and Refiners				
Upstream	0.3	0.3	—	-7
Downstream	0.3	-0.3	-0.6	—
Other[a]	—	-0.3	-0.3	—
Total Integrateds and Refiners	**0.6**	**-0.3**	**-0.9**	**—**
Oil and Gas Producers				
Upstream	0.1	—	-0.1	—
Downstream	—	—	—	44
Other[a]	0.1	0.1	—	16
Total Producers	**0.2**	**0.1**	**-0.1**	**-66**
Total Industry	**0.8**	**-0.3**	**-1.1**	**—**

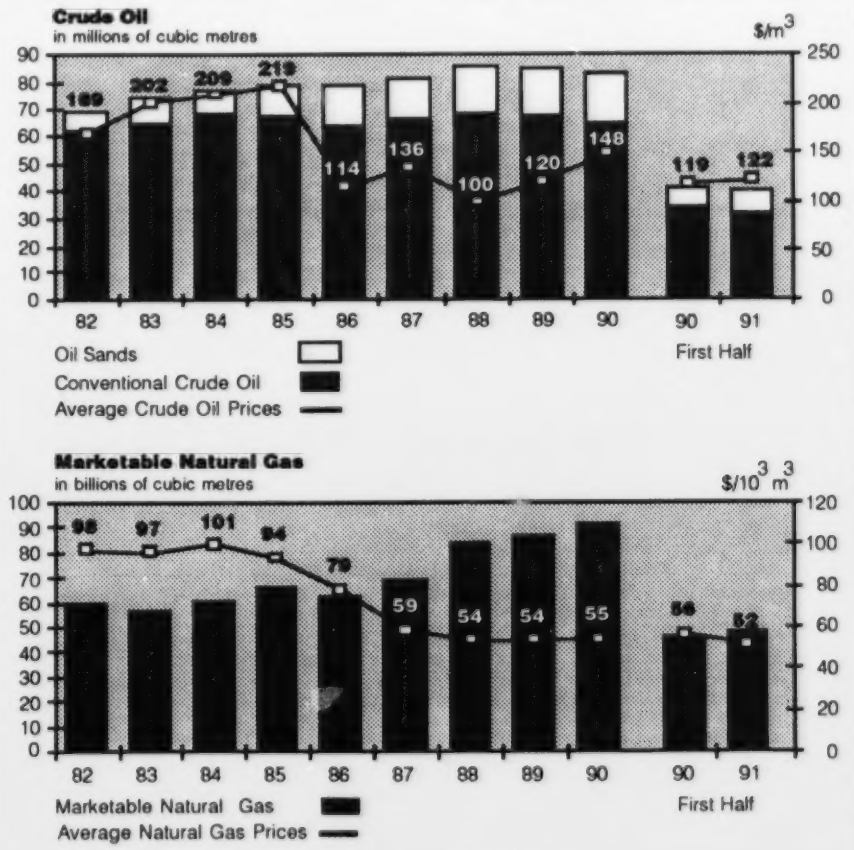
Note:
(a) Comprises net income generated by foreign activities and 'Other Canadian' operations. For more detail see Appendices B2 and B5.

Upstream Segment

Revenues from upstream operations rose 4% ($340 million) to $9.2 billion in the first six months of 1991 largely on the strength of crude oil hedging activity, reflected in higher 'All Other Revenues' (Appendices B1 and B8). During the second half of 1990, oil and gas companies sold crude oil into the futures market at a time of high crude oil prices caused by the uncertainty surrounding the Persian Gulf crisis. Without this hedging activity overall upstream revenues would have been virtually unchanged. The impact of a 3% drop in crude oil production more than offset higher realized crude oil prices[1] in the first six months of 1991 resulting in a slight crude oil revenue decrease of $15 million (Appendix B15).

A drop in production of conventional light and medium crude oil was almost offset by increases in production of heavier grades and synthetic crude oil. The increased oil sands production was due, in part, to the unusually low level of production in the first half of 1990 following damage from an explosion and fire at the Syncrude plant in mid December, 1989. In addition, a 5% increase in the production of marketable natural gas was more than offset by the impact of falling prices, resulting in a drop of natural gas revenues of $80 million. However, higher production and prices for gas plant liquids resulted in an increase in revenues of $80 million. Sulphur revenues increased $40 million in the first six months of 1991 over the same 1990 period.

Chart 1.6
Oil and Gas Production and Prices: 1982 - 1991

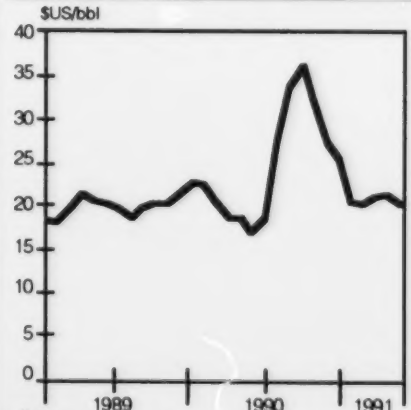


(1) Crude oil prices realized by Canadian producers are a reflection of the opposing influences of higher international prices and a stronger Canadian dollar relative to the U.S. dollar. International oil prices are generally quoted in U.S. dollars and, as the Canadian dollar strengthens, the Canadian dollar value of oil prices declines. However, the increase in the international oil price (Chart 1.7) more than offset the rise in the value of the Canadian dollar (Chart 1.8).

The average price received for crude oil (including production from oil sands) during the first half of 1991 was up 2% from the same 1990 period, to $122 per m^3 ($19.30 per bbl) from $119 per m^3 ($18.83 per bbl). Prices for natural gas fell 8% in the first half of 1991 to an average of $51.90 per 10^3m^3 ($1.47 per Mcf) over the same period in 1990 (Appendices A4 and A5). The 1991 price for marketable natural gas was the lowest level in more than a decade.

Upstream net income fell 41% ($175 million) to $250 million in the first six months of 1991 over the corresponding 1990 period. The reduction in net income was caused by a combination of higher operating costs, non–cash charges and current income taxes, which more than offset lower interest charges and deferred income taxes. Unit operating costs increased 10% to $40 per m^3 in the first six months of 1991 from $36 per m^3 in 1990. Interest charges were lower in the first half of 1991 than in 1990 due to the drop in interest rates and as a result of a number of companies trying to reduce their long-term debt burdens by rationalizing their operations through sales of assets. Non-cash charges rose largely as the result of gains on the sale of assets in the first half of 1990, which were not matched by similar gains in the same 1991 period.

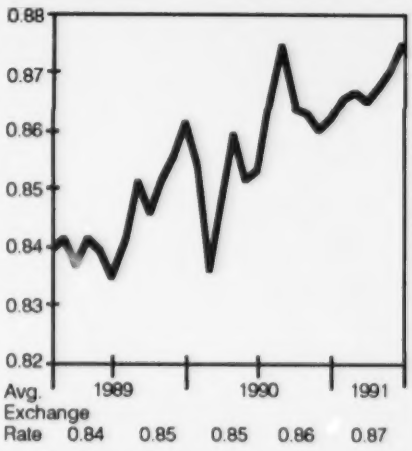
Chart 1.7
Crude Oil Prices: West Texas Intermediate (WTI)



Source: International Oil Markets Division, EMR

Internal cash flow for the upstream segment declined 3% ($100 million) to $3 billion in the first half of 1991 over the corresponding 1990 period (Appendices B1 to B8).

Chart 1.8
Exchange Rates: Canadian vs. U.S. Dollar



Source: Bank of Canada

Canadian-controlled companies reported a fall of 60% ($130 million) to $85 million in upstream net income in the first half of 1991. Higher revenues were more than offset by increased operating costs, and higher current and deferred income taxes. Non-cash charges increased only 1% as a result of a gain on the sale of assets reflected in a lower E&D expense item in the first half of 1991. The sale of assets also resulted in an increase in deferred taxes. Cash flow, unaffected by non-cash charges and deferred income taxes, rose 2% to $1.4 billion in the first six months of 1991 vs. 1990 (Appendix B6).

Foreign-controlled companies' upstream profits fell 21% ($45 million) to $165 million in the first six months of 1991 over the corresponding 1990 period. The drop was due to higher operating costs, non-cash charges and current income taxes, more than offsetting lower deferred income taxes. Cash flow decreased 8% to $1.6 billion in the first six months of 1991 over the first half of 1990 (Appendix B7).

Table 1.5
Upstream Financial Performance in billions of dollars
First Six Months

	1990	1991	Change	%
Total Revenues	**8.9**	**9.2**	**0.3**	**4**
less:				
Operating Costs	3.3	3.6	0.3	11
Interest	0.6	0.6	—	-4
Royalties, Taxes	1.4	1.4	—	2
Other Expenses	2.7	2.9	0.2	5
Income Before Taxes	**0.9**	**0.7**	**-0.2**	**-19**
Current Taxes	0.4	0.5	0.1	20
Deferred Taxes	—	—	—	—
Net Income before Extraordinary Items	0.4	0.2	-0.2	-48
Extraordinary Items	—	—	—	—
Net Income	**0.4**	**0.3**	**-0.1**	**-41**

Downstream Segment

Oil Products Operations

Revenues from refining and marketing of oil products decreased 5% to $12.9 billion in the first six months of 1991 as a result of a decline in overall Canadian demand and the replacement of the FST by the GST. Net income fell $480 million, from a profit of $175 million in the first six months of 1990 to a net loss of $300 million in the first half of 1991. A fall in the demand for petroleum products together with increased cost of goods sold (which include refinery maintenance and operating costs), and higher distribution and selling costs more than offset lower current and deferred income taxes.

On January 1, 1991 the GST replaced the FST. The GST has been excluded from companies' revenues and expenses in accordance with generally accepted accounting principles. By contrast, the FST was included in both revenues and expenses. Consequently, a discontinuity in both the revenue and the tax levels exists between the two periods. Feedstock costs were up 12% in the first half of 1991 over the corresponding 1990 period. Lower overall demand for oil products and competition for market share impeded the ability of petroleum companies to pass along these costs to consumers.

Table 1.6
Oil Products: Financial Performance and Profit Margins
First Six Months

	1990		1991		Change
	$ millions	¢/litre	$ millions	¢/litre	¢/litre
Gross Sales	13031	30.74	12428	29.95	– 0.79
Other Revenues	461	1.09	453	1.09	—
Total Revenues	**13493**	**31.83**	**12881**	**31.04**	**– 0.79**
less:					
Federal Sales and Excise Taxes[1]	2507	5.91	1599	3.85	– 2.06
Cost of Goods Sold	8180	19.30	9145	22.04	2.74
Gross Profit Margins	**2806**	**6.62**	**2137**	**5.15**	**– 1.47**
less:					
Distribution, Selling and Administrative Expenses	1971	4.65	2049	4.94	0.29
Cash Flow before Interest and Current Taxes	**835**	**1.97**	**88**	**0.21**	**– 1.76**
Interest Expenses	139	0.33	145	0.35	0.02
Current Income Taxes	155	0.37	– 112	– 0.27	– 0.64
Cash Flow from Operations after Current Taxes	**540**	**1.27**	**56**	**0.13**	**– 1.14**
Depreciation and Other Non-Cash Charges	361	0.85	393	0.95	0.10
Deferred Income Taxes	3	0.01	– 37	– 0.09	– 0.10
Extraordinary Items	—	—	– 1	—	—
Net Income after Extraordinary Items	**177**	**0.42**	**– 302**	**– 0.73**	**– 1.14**

(1) On January 1, 1991, the federal Goods and Services Tax (GST) replaced the Federal Sales Tax (FST). The GST was not included in gross sales and federal taxes, in accordance with generally accepted accounting principles. FST was included in both revenues and expenses in the 1990 data.

Cash flow for oil products operations decreased 90% ($485 million) to $55 million in the first six months of 1991 over the same 1990 period (Appendix B9).

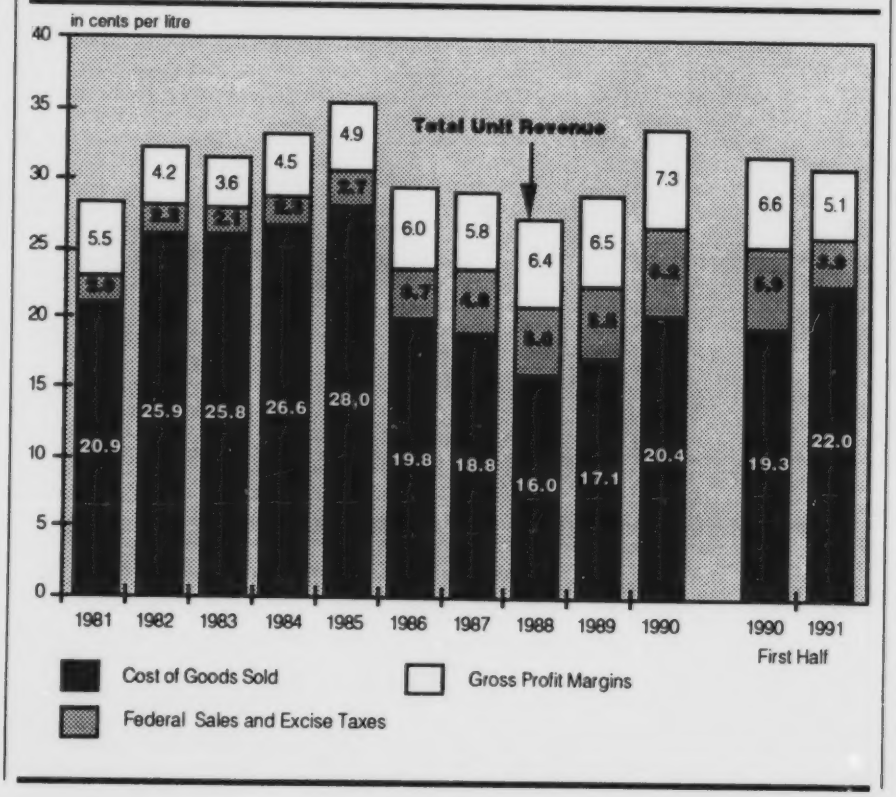
Gross profit margins, defined here as the difference between average sales revenue, and direct taxes and cost of goods sold, decreased to 5.1¢ per litre in the first six months of 1991 from 6.6¢ per litre in the same 1990 period (Appendices A8 and A21).

Average crude oil refiner acquisition costs by region and related transportation costs are shown in Appendices A6 and A7.

Other Downstream Operations

Net income from other downstream operations, mainly petrochemicals, declined $145 million from a profit of $140 million in the first six months of 1990 to a loss of $5 million in the same 1991 period. Increased feedstock costs and higher operating costs caused the decline in profits and cash flow. Internal cash flow fell 65% ($155 million) to $85 million in the first half of 1991 (Appendix B9).

Chart 1.9
Oil Products: Gross Profit Margins



Total Downstream

The combined revenues of petroleum products and petrochemical operations decreased 4% to $14.7 billion. Combined net income fell $620 million from a profit of $315 million in the first half of 1990 to a loss of $305 million in the same 1991 period, and cash flow fell 82% to $140 million.

Other Canadian Operations

This business segment, which includes corporate income and expenses, recorded a net loss of $275 million in the first half of 1991, compared with a net loss of $15 million in the corresponding 1990 period. Gains from the sale of assets in the first half of 1990 contrast with write-down of assets in the same 1991 period, resulting in increases to total non-cash charges of $420 million. This increase more than offset reduced interest expenses and cost of goods sold. Cash flow — unaffected by non-cash charges — rose from negative $150 million in the first half of 1990 to negative $5 million in the first six months of 1991.

Significant corporate costs and intercompany profit eliminations were recorded in the first halves of both 1990 and 1991, resulting in negative current taxes. Also, as noted in previous *Monitoring Reports*, many companies treat financing activities and thus interest expenses as a corporate function, by definition included in 'Other Canadian' operations. Although a large number of companies allocate interest charges to other segments, 32% of the industry's total interest expenses are charged to this segment which itself accounts for only 4% of total industry revenues.

Foreign Operations

Net income from foreign operations declined 19% to $70 million in the first six months of 1991 over the same 1990 period. A 44% increase in revenues was more than offset by increases in the cost of goods sold and in operating costs. The increase in revenues reflects extensive marketing of natural gas liquids. Foreign activities of Canadian petroleum companies are largely oil and gas production operations. Cash flow fell 3% to $270 million in the first half of 1991 (Appendix B1).

Chart 1.10
Federal Sales and Excise Taxes[1] on Regular Unleaded Gasoline

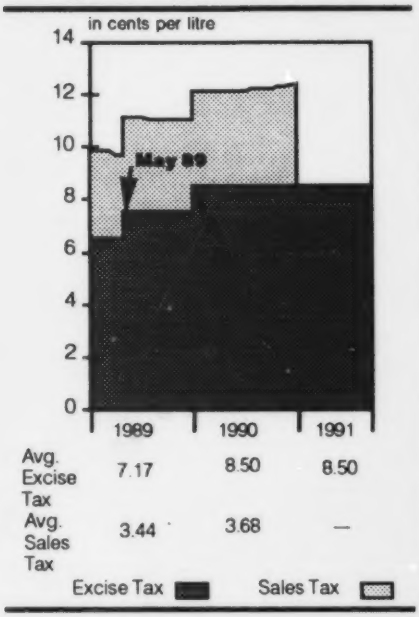


Table 1.7
Downstream Financial Performance by Subsegment in millions of dollars
First Six Months

	Net Income			Cash Flow		
	1990	1991	Change %	1990	1991	Change %
Oil Products	177	-302	—	540	56	-90
Petrochemicals	140	-3	—	238	83	-65
Total Downstream	316	-305	—	778	138	-82

(1) Federal taxes on gasoline are made up of a sales tax, based on an ad valorem rate, and an excise tax which is not tied to the price of the product. On January 1, 1991, the Goods and Services Tax (GST) replaced the Federal Sales Tax (FST). The GST and provincial sales taxes, excluded from companies' revenues and expenses, are not shown here.

2

Sources and Uses of Funds[1]

Overview

Funds available to the petroleum industry prior to discretionary uses decreased 1% ($30 million) to $5 billion in the first six months of 1991. This resulted from a decline of $600 million in internal cash flow, more than offsetting an increase of $570 million in net external sources. Net external sources provided $1.6 billion in the first half of 1991 vs. $1 billion in the same 1990 period.

New long-term debt exceeded redemptions by $1.6 billion in the first six months of 1991, compared with $415 million of net new long-term debt in the same 1990 period. Redemption of equity, net of new issues, was $15 million in the first six months of 1991 vs. $625 million of new equity, net of repurchases, in the same 1990 period. In 1990 and 1991 assets were sold in an effort to eliminate marginal activities and to reduce long-term debt. However, in the first half of 1991, long-term debt rose as a result of a draw on a revolving fund with the capital being placed in short-term financial instruments. In addition, redemption of preferred shares more than offset new issues of equity.

During the first half of 1991, net capital outlays were 19% higher at $4.6 billion, than the year before. Dividend payments fell 6% from $780 million to $735 million. In the first six months of 1991, the impact of the sale of assets can be seen in the excess of 'All Other Sources' over 'All Other Uses'. The excess of 'All Other Uses' over 'All Other Sources' in the first half of 1990 resulted from the purchase of assets and takeover activity.

The net decrease in working capital of $130 million in the first six months of 1990, compares with a net increase of $150 million in the same 1991 period (Appendix B10).

Table 2.1
Sources and Uses of Funds (Net) in billions of dollars
First Six Months

	1990	1991	Change	Change %
Internal Sources				
Net Income before Extraordinary Items	0.8	-0.3	-1.1	—
Non-Cash Items	3.2	3.7	0.5	16
Internal Cash Flow	**4.0**	**3.4**	**-0.6**	**-15**
Net External Sources				
New Long-Term Debt, Net of Repayments	0.4	1.6	1.2	293
New Equity, Net of Repurchases	0.6	—	-0.6	—
Net External Sources	**1.0**	**1.6**	**0.6**	**55**
Net Sources	**5.0**	**5.0**	**—**	**-1**
Discretionary Uses				
Net Capital Expenditures	3.8	4.6	0.8	19
Dividend Payments	0.8	0.7	-0.1	-6
All Other Uses, Net of Other Sources	0.6	-0.4	-1.0	—
Net Uses	**5.2**	**4.9**	**-0.3**	**-6**
Net Working Capital Change	**-0.1**	**0.2**	**0.3**	**—**

(1) Sources and uses of funds for an individual company are reported to the PMA on a net basis. For example, a company raising and repaying debt would report only the net amount. Similarly, companies report only the net amount with regard to changes in equity and in working capital. For the industry as a whole, the PMA continues this process of netting the aggregates to show the industry's net draw of funds from, or net contribution of funds to, other sectors of the economy. However, these aggregates are shown separately in Table 2.2, to allow the reader to distinguish at the aggregate level between new long-term debt and repayment of debt, etc.

Sources and Uses of Funds (Gross)

New long–term debt was $2.3 billion, up $710 million from the first half of 1990. A portion of this new long-term debt was raised and invested in short-term investments, thereby increasing the industry's level of working capital. Repayment of debt fell $500 million to $660 million. New share issues declined $95 million to $790 million, while equity reductions rose $545 million to $805 million in the first six months of 1991.

Reported individual decreases of working capital totalled $1.4 billion in the first six months of 1991, up $275 million from the the same 1990 period. Individually reported increases in working capital totalled $1.5 billion in the first half of 1991 compared to $975 million in the same 1990 period.

As noted earlier, a significant part of the increases in working capital came about through the increase in short-term investment.

Funds reported as 'All Other Sources' represent, in part, proceeds from the sale of oil and gas properties. 'All Other Sources' generated $1.6 billion in the first six months of 1991 vs. $1.7 billion in the same 1990 period. 'All Other Uses' of funds fell from $2.3 billion in the first half of 1990 to $1.2 billion in the same 1991 period, largely as a result of decreased funds used for takeover activity. Also, funds used for the purchase of assets decreased to $390 million from $485 million in the first half of 1990.

Net capital expenditures increased 19% ($740 million) to $4.6 billion in the first half of 1991 over the same period of 1990 (for further detail see Table 2.4).

Table 2.2
Selected Categories of Sources and Uses of Funds in billions of dollars[a]
First Six Months

	1990	1991	Change	Change %
New Long-term Debt[b]	1.6	2.3	0.7	45
Repayment of Long-term Debt[d]	1.2	0.7	- 0.5	- 43
Long–term Debt, Net of Repayments	**0.4**	**1.6**	**1.2**	**293**
New Equity[b]	0.9	0.8	- 0.1	- 11
Repurchase of Equity[d]	0.3	0.8	0.5	211
Net Equity, Net of Repurchases	**0.6**	**—**	**- 0.6**	**—**
Working Capital Increase[d]	1.0	1.5	0.5	57
Working Capital Decrease[b]	1.1	1.4	0.3	25
Net Working Capital Change	**- 0.1**	**0.2**	**0.3**	**—**
All Other Sources[c]	1.7	1.6	- 0.1	- 8
All Other Uses[e]	2.3	1.2	- 1.1	- 49
Other Uses Net of Other Sources	**0.6**	**- 0.4**	**- 1.0**	**—**
Total Capital Outlays	3.9	4.6	0.7	19
Incentive Grants and Other Receipts	—	0.1	0.1	28
Net Capital Expenditures	**3.8**	**4.6**	**0.8**	**19**

Notes:
(a) Appendix B10 shows more detail.
(b) Represents amounts of new long–term debt, new equity, or funds from drawing down working capital by those companies that reported deriving net funds from these sources.
(c) Includes unusual gains; unusual losses are included in 'All Other Uses'.
(d) Represents the net application of funds to repay long–term debt, repurchase equity, or to build up working capital by those companies that reported using funds for these purposes.
(e) Mainly funds for acquisitions of plant and property from other corporations and for corporate takeovers.

Internal Cash Flow

Petroleum industry internal cash flow decreased 15% ($600 million) to $3.4 billion in the first six months of 1991. Slightly lower revenues, particularly for oil products, together with higher operating and feedstock costs more than offset lower interest expenses, current income taxes, and federal sales and excise taxes. In the latter case the elimination of the FST reduces both revenue and expenses. The upstream segment recorded a decrease of 3% ($100 million) to $3 billion due to higher operating costs and current income taxes. Cash flow from downstream operations dropped 82% ($640 million) as lower revenues together with increased cost of goods sold (feedstock costs) offset decreased sales and excise taxes and current income taxes. Cash flow of 'Other Canadian' operations rose from a negative $150 million in the first half of 1990 to a negative $5 million in the same 1991 period, as a result of the lower cost of goods sold, interest charges and current income taxes. Internal cash flow from foreign activities fell 3% to $270 million in the first half of 1991.

Canadian-controlled companies' internal cash flow decreased 7% to $1.7 billion in the first six months of 1991. The weak results from downstream operations more than offset the stronger performance of all other business segments.

Foreign-controlled firms' cash flow was down 22% to $1.7 billion, with lower cash flow in upstream, downstream and foreign activities more than offsetting increases in 'Other Canadian' operations.

Table 2.3
Internal Cash Flow by Sector and Segment in billions of dollars[a]
First Six Months

	1990	1991	Change	Change %
Canadian-Controlled Companies				
Upstream	1.4	1.4	—	2
Downstream	0.3	0.1	-0.2	-73
Other[b]	0.1	0.2	0.1	51
Total Canadian-Controlled	**1.8**	**1.7**	**-0.1**	**-7**
Foreign-Controlled Companies				
Upstream	1.7	1.6	-0.1	-8
Downstream	0.5	0.1	-0.4	-87
Other[b]	—	0.1	0.1	322
Total Foreign-Controlled	**2.2**	**1.7**	**-0.5**	**-22**
Total Industry				
Upstream	3.1	3.0	-0.1	-3
Downstream	0.8	0.1	-0.7	-82
Other[b]	0.1	0.3	0.2	108
Grand Total	**4.0**	**3.4**	**-0.6**	**-15**

Notes:
(a) See Appendices B1, B6 and B7 for more detail.
(b) Comprises internal cash flow generated by foreign activities and 'Other Canadian' operations.

Capital Expenditures

Gross capital expenditures in the first six months of 1991 rose 19% to $4.6 billion over the same 1990 period. Domestic expenditures rose 20% to $4.3 billion while outlays abroad rose 8%. Expenditures abroad, as a share of total capital spending, fell one percentage point to 7% of the total in the first half of 1991. Upstream expenditures remained the largest component of total capital outlays, accounting for 81% in the first half of 1991, up 4 percentage points from the corresponding 1990 period. Downstream expenditures declined 4% and the small component of 'Other' expenditures fell 23%.

Upstream: With the single exception of exploration expenditures, all other upstream categories recorded significant increases in capital outlays in the first half of 1991 over the same 1990 period. Exploration outlays declined 4% to $1.4 billion in the first six months of 1991, reflecting the continued uncertainty over future oil prices which has existed over the past number of years. Capital outlays, for development expenditures, rose 27% to $600 million, in an effort to bring new production on stream. Expenditures on production facilities rose 49% to $1.2 billion reflecting increased activity on major projects such as the Caroline gas field development, Hibernia, and Cohasset/Panuke. Also, increases in spending for the Bi-Provincial Upgrader classified together with oil sands expenditures, accounted for most of the increase in capital outlays of 79% within the non-conventional area. As a result, upstream capital expenditures increased 26% to $3.8 billion in the first half of 1991.

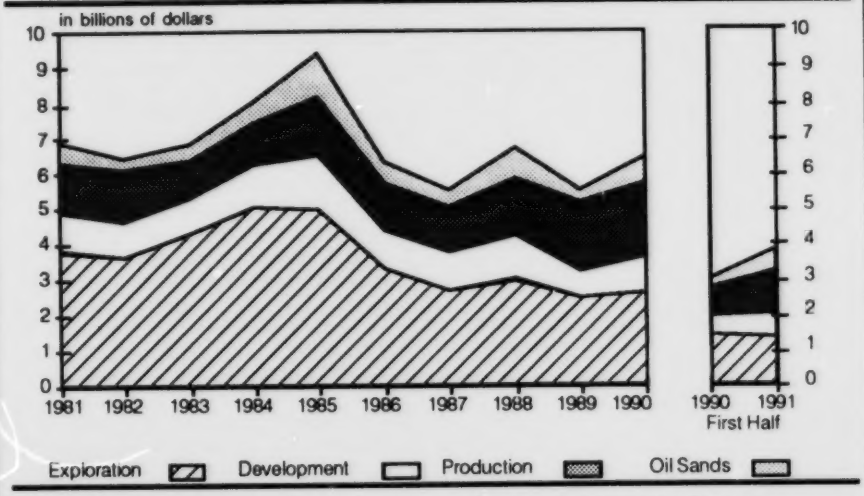
Upstream outlays by Canadian-controlled companies increased 17% and those of foreign-controlled companies rose 35%. As a result, the Canadian-controlled group of companies' share of upstream capital spending fell 3 percentage points to 48% of the total in the first six months of 1991 (Appendix B11).

Table 2.4
Capital Expenditures in billions of dollars[a]
First Six Months

	1990	1991	Change	%	Share of Total 1990 %	Share of Total 1991 %
Upstream						
Exploration	1.4	1.4	—	-4	37	30
Development	0.5	0.6	0.1	27	12	13
Production	0.8	1.2	0.4	49	21	27
Non-conventional[b]	0.1	0.2	0.1	79	3	4
Total Upstream[c]	**3.0**	**3.8**	**0.8**	**26**	**77**	**81**
Downstream	0.4	0.4	—	-4	11	9
Other Energy Related	—	—	—	138	—	—
All Other	0.2	0.1	-0.1	-29	4	2
Total Expenditures in Canada	**3.6**	**4.3**	**0.7**	**20**	**92**	**93**
Expenditures Abroad	**0.3**	**0.3**	**—**	**8**	**8**	**7**
Total Expenditures	**3.9**	**4.6**	**0.7**	**19**	**100**	**100**
Incentive grants and other receipts	—	0.1	0.1	28		
Net Capital Expenditures	**3.8**	**4.6**	**0.8**	**19**		
Memo Item: Upstream Capital Expenditures (Net of incentive grants and other receipts)	2.9	3.7	0.8	26		

Notes:
(a) More detail is presented in Appendices B11 and B12.
(b) Includes oil sands and non-conventional heavy oil projects.
(c) Includes incentives, grants, tax credits and other receipts.

Chart 2.1
Upstream Expenditures in Canada

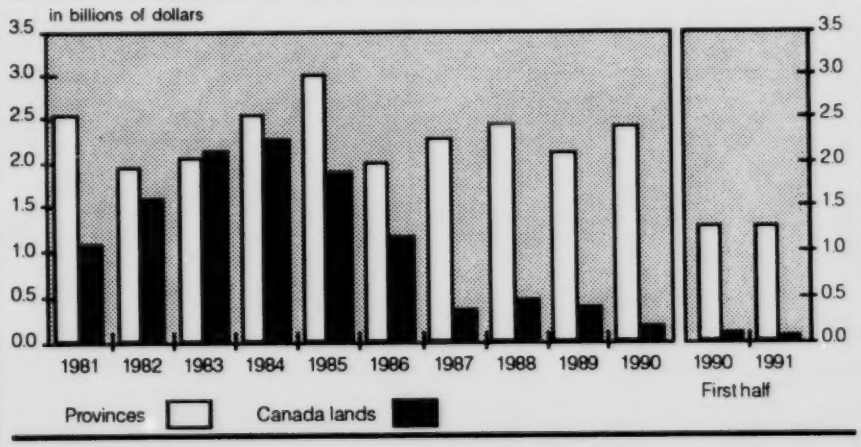


Exploration expenditures in the provinces fell by less than 1% to $1.3 billion, and dropped 42% to $75 million on Canada Lands. This produced a 4% decrease in total exploration spending to $1.4 billion. Expenditures on Canada Lands accounted for 6% of the total in the first six months of 1991, down from 9% for the same period in 1990.

Exploration outlays by foreign–controlled companies were down 2% in the first half of 1991, while those for Canadian–controlled firms fell by 6%. Canadian–controlled companies accounted for 53% of total exploration spending, down 0.5 percentage points from the same 1990 period (Appendix B12).

Total exploration outlays grew rapidly between 1981 and 1985. This increase was driven by intense activity on Canada Lands, fuelled by incentives programs. The decline in crude oil and natural gas prices which started in 1986, along with the gradual elimination of most incentives programs, resulted in a significant reduction in exploration expenditures commencing in 1986 and in the last four years of the decade, falling to levels below that of 1981.

Chart 2.2
Exploration Expenditures by Location



Downstream Expenditures: Downstream outlays declined 4% to $405 million in the first six months of 1990. Decreases in expenditures for refineries more than offset increased spending on marketing outlets and petrochemical plants.

Energy Mining and All Other: Expenditures were down 23% in energy mining and in all other areas including those for mining facilities, drilling ships, caissons and drilling rigs. This category of capital outlays may also include capitalized interest.

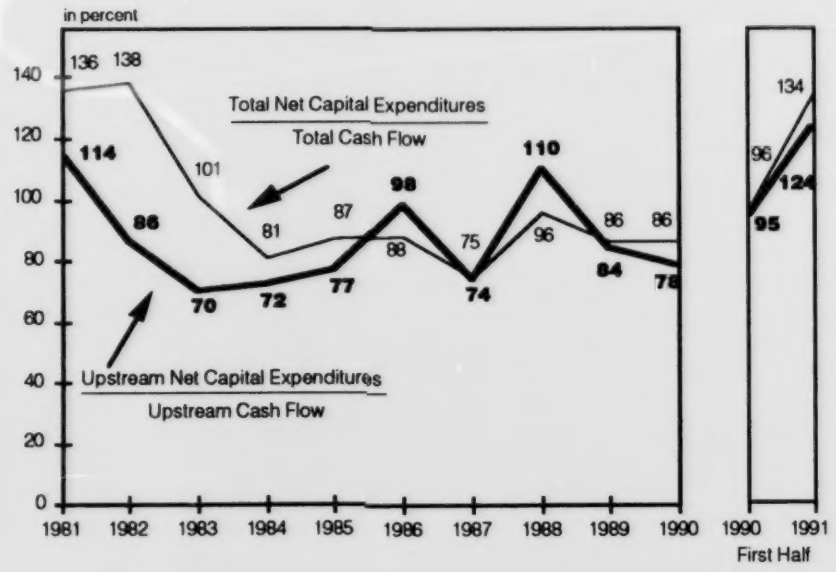
Reinvestment Rates

The overall reinvestment rate for the petroleum industry — total net capital expenditures[1] as a percentage of internal cash flow from all business segments — was 134% in the first six months of 1991, up from 96% in the corresponding 1990 period. The 15% reduction in internal cash flow plus the 19% rise in net capital expenditures caused the increase of 38 percentage points in the reinvestment rate (Appendix A15). Much of the increase in capital expenditures relates to major projects such as the Caroline gas field development, Hibernia, Cohasset/Panuke and the Bi-Provincial Upgrader. Because of their large size, these projects cannot be expected to be financed out of a company's current year cash flow. Financing usually occurs through increased debt or equity.

Both Canadian- and foreign-controlled groups reported major overall increases in their reinvestment rates. The Canadian-controlled companies' total reinvestment rate rose from 108% in the first half of 1990 to 133% in the same 1991 period, while that of foreign-controlled companies rose from 86% to 136%. A comparison of the two groups in terms of upstream activities gives similar results, with Canadian-controlled companies reinvesting 124% of upstream cash flow (up 16 percentage points) and 124% for foreign-controlled firms (up 40 percentage points).

Upstream capital expenditures (net of incentive grants) accounted for 124% of industry upstream cash flow, up 29 percentage points from the reinvestment rate for the first half of 1990. Upstream cash flow decreased 3% while net upstream capital expenditures rose 26%.

Chart 2.3
Reinvestment Rates



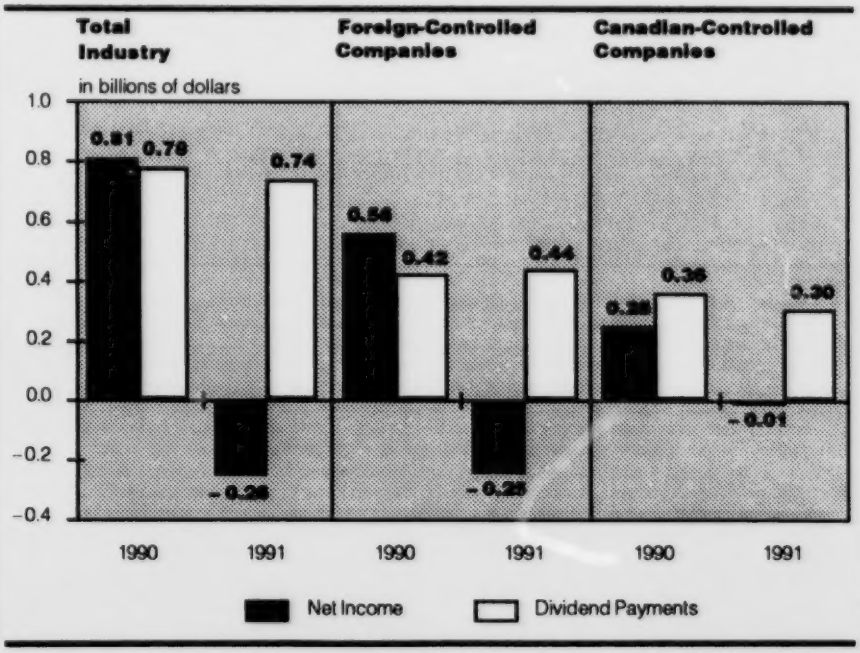
(1) Net capital expenditures are defined as gross capital expenditures less incentive grants, tax credits and insurance receipts.

Dividend Payments

Dividend payments by the petroleum industry decreased 6% to $735 million in the first six months of 1991, while net income fell $1.1 billion for a loss of $260 million. While in most cases companies pay dividends out of profits, the netting of companies reporting losses against those reporting profits may yield unusual results in terms of payout rates, as reflected in the data from the first six months of 1991. Also, it is recognized that dividend payment policies for any particular company do not necessarily change as a result of one or two poor years.

Dividends paid by Canadian-controlled companies decreased 19% to $295 million, while dividend payments by foreign-controlled companies rose 6% to $440 million (Appendices A19 and B10).

Chart 2.4
Dividend Payments Compared with Net Income
First Six Months



3

Comparative Performance: Petroleum and Other Industries

Net Income Comparison

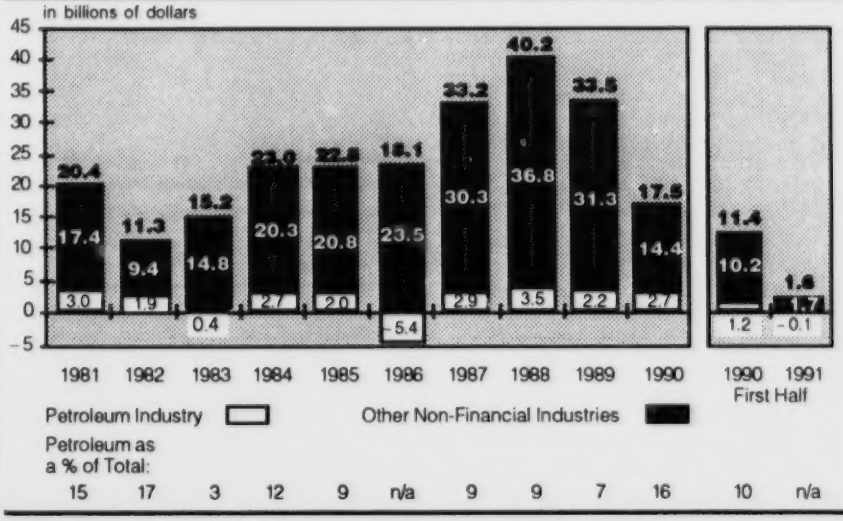
This chapter is intended to provide an overview of the relative and changing importance of the petroleum industry with reference to the total net income picture of all non-financial industries.

The financial performance of the petroleum sector can be put into perspective by comparing it to other sectors of the economy using data from Statistics Canada(1). It should be noted that the data for non-financial industry shown in prior reports are quite different from the statistics presented here. This is due to modifications to Statistics Canada data as described in (1).

Table 3.1
Comparison of Net Income: Petroleum Industry vs. All Other Non-Financial Industries in billions of dollars
First Six Months

	1990	1991	Change	%
Total Non-Financial excluding Petroleum	10.2	1.7	- 8.5	- 84
Petroleum	1.2	- 0.1	- 1.3	—
Total Non-Financial including Petroleum	11.4	1.6	- 9.8	- 86

Chart 3.1
Comparison of Net Income: Petroleum Industry vs. All Other Non-Financial Industries

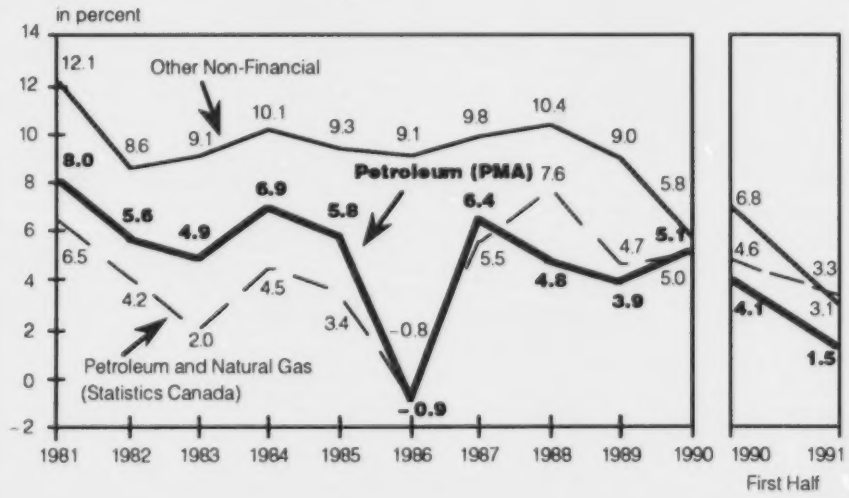


(1) The data presented in this section of the report are not precisely comparable with those based on the PMA survey as reported in Chapters 1 and 2. Beginning with the fourth quarter of 1990, a number of changes were introduced by Statistics Canada to their statistical series. The two industrial classifications of 'Mineral Fuels' and 'Petroleum and Coal Products' which together closely approximated the aggregate PMA survey results of upstream and downstream operations, are no longer available. As a result, this chapter now deals with a much broader definition of Petroleum which includes not only upstream and downstream operations, but also wholesaling and retailing activities, contract drilling, petroleum pipelines and other services incidental to petroleum and natural gas production. In addition, while in the past a comparison was made with companies having assets of more than $10 million, this is no longer possible. Instead, the entire non-financial industry is selected for comparison. However, as in the past, the petroleum industry data from Statistics Canada, while covering a greater number of companies than the PMA survey, exclude government business enterprises as well as the foreign activities of companies originating in Canada. The PMA survey covers the global activities of petroleum companies operating in Canada, including Crown corporations, subject to a minimum size of $10 million in terms of assets and revenues.

Exclusive of Crown corporations, the petroleum industry's net income from Canadian operations after extraordinary items fell $1.3 billion from a profit of $1.2 billion in the first half of 1990 to a net loss of $100 million in the corresponding 1991 period. By comparison, net income of all other non-financial industries fell 84% ($8.5 billion) to $1.7 billion in the first six months of 1991 as a result of an economic downturn. Chart 3.1 illustrates that while the petroleum industry contributed 10% to the total net income of all non-financial industries in the first half of 1990, its loss in 1991 reduced the net income for all non-financial industries to $1.6 billion, a drop of 86% from the first half of 1990.

The annualized rate of return on capital employed for the petroleum industry was 1.5% in the first half of 1991, down from 4.1% recorded in the corresponding 1990 period. Meanwhile, all other non-financial industries, excluding petroleum, had a rate of return on capital employed of 3.1% vs. 6.8% in the first half of 1990.

Chart 3.2
Rates of Return on Capital Employed: Petroleum Industry[1] vs. All Other Non-Financial Industries



(1) PMA data for the petroleum industry are not precisely comparable with those of Statistics Canada. The petroleum and natural gas series include industries not covered by the PMA such as contract drilling, pipelines and other service industries.

Capital Expenditures

Based on Statistics Canada data, petroleum industry net capital expenditures (i.e. after deducting incentive grants) increased 22%[1] in the first half of 1991 over the corresponding 1990 period. However, federal and provincial expenditures on the Bi–Provincial Upgrader are not included in these data. Had they been included, the increase in capital expenditures would have been higher.

Capital expenditures of non–financial industries excluding petroleum decreased 5%. The capital expenditures of the petroleum industry as a proportion of total capital expenditures of all non–financial industries increased by 3 percentage points to 15% in the first six months of 1991.

Table 3.2
Comparison of Capital Expenditures: Petroleum Industry vs. All Other Non–Financial Industries in billions of dollars
First Six Months

		1990	1991	Change	Change %
1.	**Total Non–Financial** excluding Petroleum	**32.8**	**31.1**	**– 1.7**	**– 5**
2.	Petroleum	4.6	5.7	1.1	22
3.	**Total Non–Financial** including Petroleum	**37.4**	**36.8**	**– 0.6**	**– 2**
4.	Line 2 as a % of line 3	12	15		

Source:
Statistics Canada, 61-008, *Quarterly Financial Statistics for Enterprises*. This survey does not include government enterprises. Expenditures are net outlays, excluding capital grants.

(1) These data differ significantly from those published in Chapter 2 due to Statistics Canada's inclusion of some acquisitions in the category of capital expenditures.

4

International Flows of Funds: 1990 vs. 1989

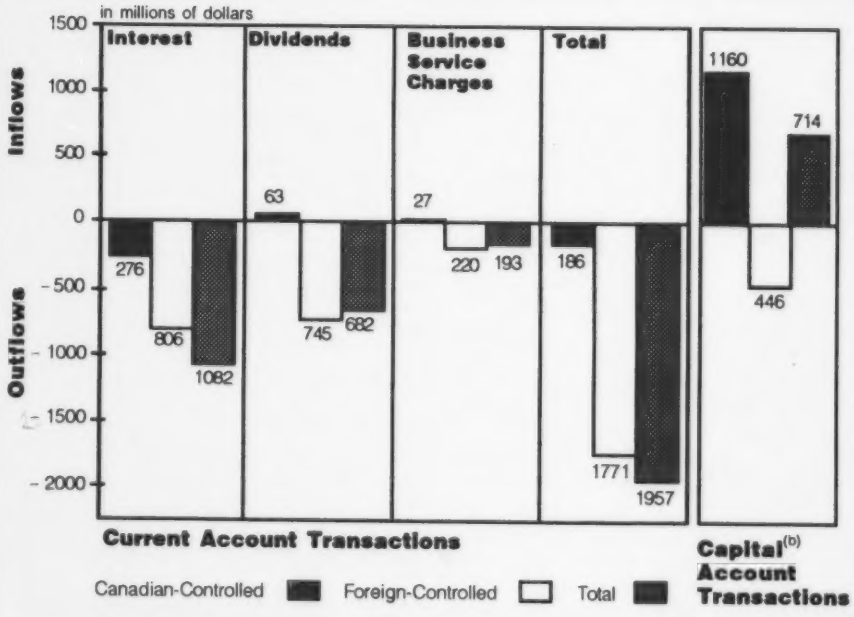
In this chapter and in chapters 5 and 6 (Capital Structure and Income Tax-Related Data) statistics for the full year 1990 are compared with the full year 1989. These data were not available when the report for the year 1990 was issued.

The international flows of funds[1] related to long-term capital movements to and from the Canadian petroleum industry registered a net outflow of $1.2 billion in 1990; this resulted from net outflows of $2 billion in the current account and net inflows of $715 million in the capital account (Appendix A22). Within the current account, net interest payments to and from non-residents amounted to an outflow of $1.1 billion in 1990, up 3% ($30 million) over 1989. Higher long-term borrowings by Canadian-controlled companies from non-residents for takeover activity were largely responsible for the increase in interest payments. The repayment of long-term debt by foreign-controlled companies reduced their level of interest payments to non-residents.

Dividend payments, another component of the current account, registered a net outflow of $680 million in 1990, up from a net outflow of $470 million in 1989. Business services charges were $195 million in 1990 vs. $190 million in 1989.

The capital account net inflow of $715 million in 1990 was the result of a number of large offsetting transactions. Canadian-controlled companies borrowed money internationally for the purchase of assets, while foreign-controlled companies paid down foreign debt following the sale of assets.

Chart 4.1
International Flows Related to Long-Term Investments[a] – 1990



Notes:
(a) All figures are net amounts and exclude exports and imports of goods, and transportation services. Appendix A22 shows additional detail including short-term capital flows – these latter flows amounted to $135 million (net outflows) in 1990.
(b) Capital account represents funds related to long-term investments, such as a parent company's investment in a foreign subsidiary or the repatriation of a controlling interest from a non-resident owner.

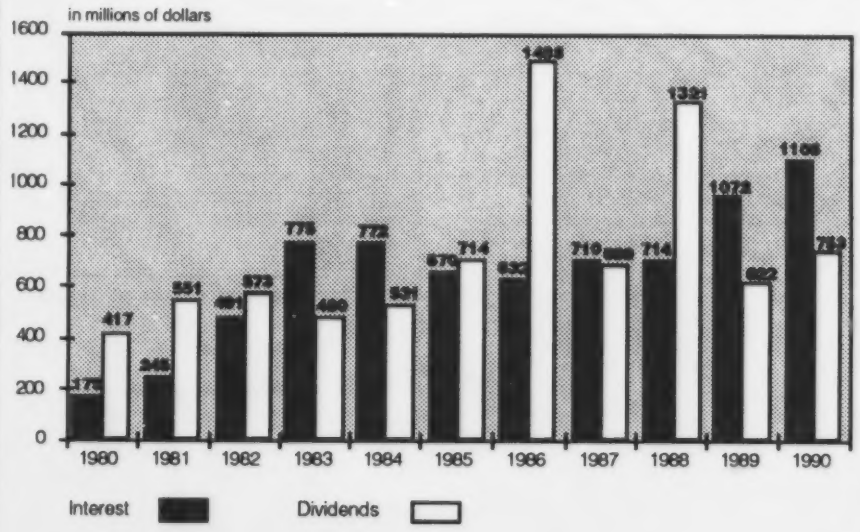
(1) Data on international flows of funds are obtained from Statistics Canada. International flows of funds to or from non-energy parent companies caused by the transactions of their energy subsidiaries are not included.

The Canadian-controlled sector reported a net capital account inflow of $1.2 billion as debt raised from foreign sources more than offset Canadian investments in foreign subsidiary companies. Interest and dividend payment outflows to non-resident owners of debt and equity in Canadian-controlled companies was $285 million in 1990, the corresponding figure for recorded inflows from Canadian subsidiaries abroad was $70 million (Appendix A22).

The foreign-controlled sector of the industry registered repayments of long-term debt partly offset by the reinvestment of interest accruing to foreign parent companies.

Within the current account, foreign-controlled companies reported net interest payment outflows of $805 million, dividend payments of $745 million, and business service charges of $220 million, totalling $1.8 billion.

Chart 4.2
Interest and Dividend Payments to Non-Residents[a][b]: 1980 — 1990

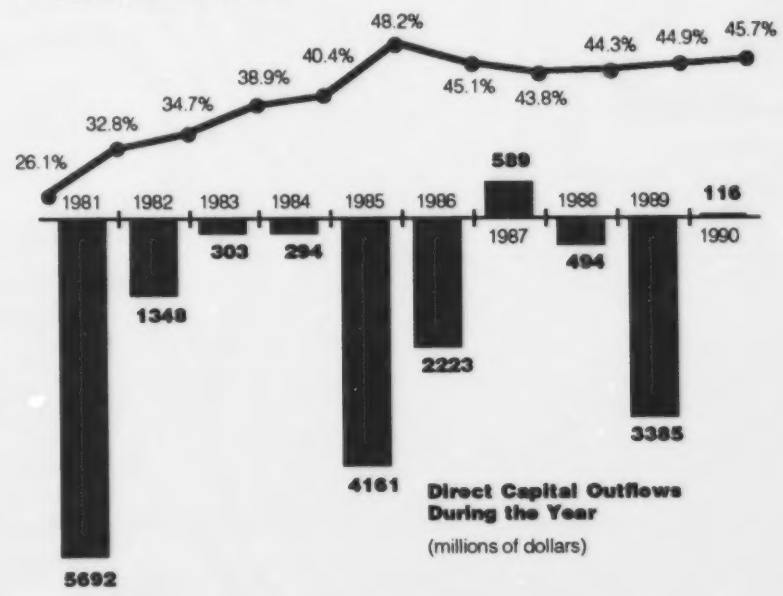


Note:
(a) Appendix A22 shows dividend and interest payments and additional details for 1990.
(b) Excludes withholding tax.

Between 1981 and 1985 direct outflows of capital from the Canadian petroleum sector could be attributed to the cost of takeovers of foreign-controlled oil and gas companies. The overall rate of Canadian ownership in the industry increased during this period.

In 1990, the Canadian-owned proportion of the petroleum industry's upstream plus downstream revenues increased by almost one percentage point. The increase in Canadian ownership was the result of purchases of foreign-controlled company assets by Canadian-controlled companies. Asset sales occurred in 1990 following a number of major takeovers of Canadian companies by foreign-controlled firms. The sales were arranged in order to rationalize operations, meet Investment Canada commitments, and to pay down debt.

Chart 4.3
Direct Capital Flows vs. Changes in Canadian Ownership



5

Capital Structure: 1990 vs. 1989

Total capital employed (long-term debt plus equity) in the petroleum industry was $65.4 billion in 1990, up $2.7 billion (4%) from the level recorded in 1989. The level of equity increased from $39.2 billion in 1989 to $42.5 billion in 1990, and the amount of long-term debt decreased to $22.9 billion from $23.5 billion in 1989. Equity represented 65% of industry capitalization in 1990, up from 62% in 1989. Long-term debt was 35% of the industry capital employed in 1990, down from 38% in 1989 (Appendix A23).

Canadian-controlled companies' capital employed as a percentage of that for the total industry rose to 46% in 1990, up from 43% in 1989 as a result of increased long-term borrowing. The Canadian-controlled companies' share of total equity was unchanged at 48%.

Foreign-controlled companies decreased their capital employed in 1990 as a result of reduced long-term debt following the sale of assets subsequent to takeover activity in 1989. Fifty-four percent (54%) of all capital employed in the industry was foreign-controlled in 1990, down from 57% in 1989.

Table 5.1
Capital Structure by Sector: 1990 vs. 1989 in billions of dollars

	1989	1990	Change		Share of Total 1989	Share of Total 1990
				%	%	%
Canadian-Controlled Companies						
Equity – Preferred	3.4	2.2	– 1.2	– 34	12	7
– Common[a]	15.4	18.1	2.7	18	57	61
Total Equity	18.7	20.4	1.7	9	69	68
Long-term Debt	8.4	9.6	1.2	14	31	32
Capital Employed[b]	**27.2**	**29.9**	**2.7**	**10**	**100**	**100**
Foreign-Controlled Companies						
Equity – Preferred	1.3	1.4	0.1	8	4	4
– Common[a]	19.1	20.7	1.6	8	54	58
Total Equity	20.4	22.1	1.7	8	57	62
Long-term Debt	15.1	13.3	– 1.8	– 12	43	38
Capital Employed[b]	**35.5**	**35.4**	**– 0.1**	**—**	**100**	**100**
Total Industry						
Equity – Preferred	4.7	3.7	– 1.0	– 22	7	6
– Common[a]	34.5	38.8	4.3	13	55	59
Total Equity	39.2	42.5	3.3	8	62	65
Long-term Debt	23.5	22.9	– 0.6	– 3	38	35
Total Capital Employed[b]	**62.7**	**65.4**	**2.7**	**4**	**100**	**100**

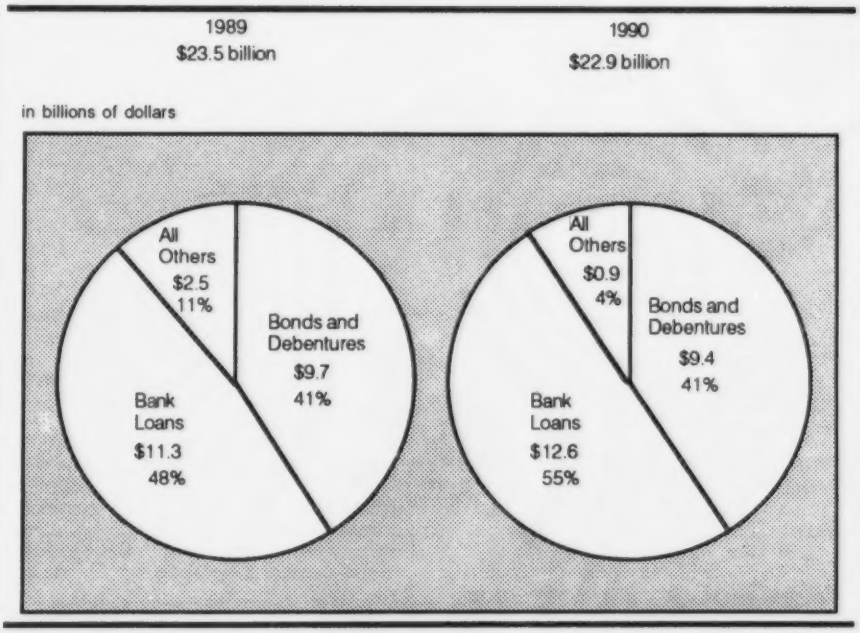
Notes:
(a) Includes common shares, contributed surplus and retained earnings.
(b) Excludes minority interest as detailed in Appendix A23.

Long-Term Debt

In 1990, the long-term debt of the Canadian petroleum industry decreased $655 million (3%) to $22.9 billion. Long-term debt rose in 1989 to finance takeovers. In 1990, non-strategic assets were sold in an effort to eliminate marginal activities and to reduce long-term debt. Bonds and debentures were reduced by 4% to $9.4 billion in 1990, from $9.7 billion in 1989. Approximately 48% of long-term debt was raised at floating interest rates, based on Canadian or U.S. prime rates or LIBOR(1) (Appendix A23).

Of the total debt outstanding in 1990, $11.7 billion was payable in U.S. dollars, $9.8 billion in Canadian dollars and $1.4 billion was payable in other currencies (Appendix A24).
Long-term debt owed by foreign-controlled companies decreased by 12%, to $13.3 billion as proceeds from asset sales were used to pay down debt.
Long-term debt owed by Canadian-controlled companies increased 14% to $9.6 billion in 1990 as a result of increased borrowing to purchase assets.

Chart 5.1
Industry Long-Term Debt Structure



(1) The London Inter-Bank Offer Rate (LIBOR) is defined as the rate at which funds are offered in London to first-class international banks.

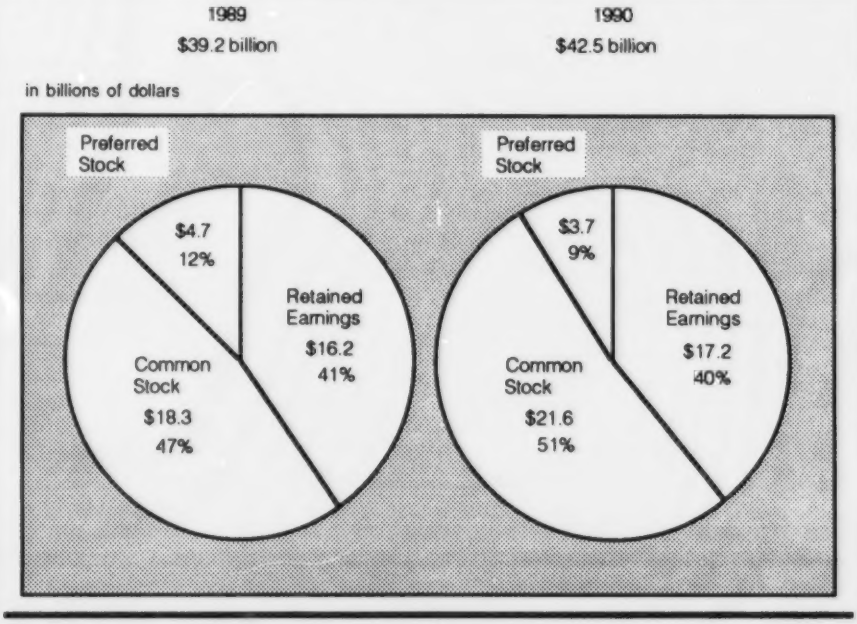
Equity

Shareholders' equity in the Canadian petroleum industry rose 8% ($3.3 billion) to $42.5 billion in 1990. The book value[1] of common shares rose 18% ($3.4 billion) in 1990, more than offsetting the 22% ($1 billion) decline in value of preferred equity. Retained earnings increased to $17.2 billion from $16.2 billion in 1989 (Appendix A23).

Canadian-controlled companies' preferred stock holdings declined in value by $1.1 billion to $2.2 billion in 1990. The book value of common equity rose by $2.3 billion to $13.3 billion. Retained earnings for this sector increased to $4.8 billion in 1990 from $4.3 billion the previous year.

Foreign-controlled companies increased common equity by $1.1 billion to $8.3 billion, while the total value of their preferred stocks rose 8% to $1.4 billion. Retained earnings increased from $12 billion in 1989 to $12.4 billion in 1990.

Chart 5.2
Industry Equity Structure



(1) Book value includes contributed surplus.

6

Income Tax-Related Data: 1990 vs. 1989

Taxable Income and Income Taxes Payable

Taxable income reported by the petroleum industry increased 42% to $3.3 billion in 1990 from $2.3 billion in 1989. The increase was entirely attributable to a better performance of the upstream segment which benefited from higher crude oil prices during the Gulf crisis, which occurred in the last five months of 1990. As a result, income taxes payable to the federal and provincial governments increased 70% to $1.2 billion from $675 million in 1989. Federal income tax payable rose 48% to $925 million from $625 million in 1989, mainly due to the increase in taxable income. Also, a slight increase in taxes was generated by the Large Corporations Tax which was in effect for the full year of 1990 but only in the second half of 1989.

Provincial income taxes payable rose by $175 million to $220 million in 1990. In addition to the increase in taxable income (tax base), the growth in provincial income taxes payable was due to lower Alberta Royalty Tax Credits (ARTC), following the changes in the ARTC program which took effect January 1, 1990. The new price sensitive ARTC program sets the rate for the current quarter based on the average par price of crude oil in the previous quarter (Appendices B17 to B20).

Table 6.1
Taxable Income and Income Taxes Payable in billions of dollars

	1989	1990	Change	%
Canadian-Controlled Companies				
Taxable Income	**0.53**	**0.84**	**0.31**	**57**
Income Taxes Payable:				
Federal	0.15	0.26	0.11	70
Provincial	– 0.05	0.01	0.06	—
Income Taxes Payable	**0.10**	**0.27**	**0.17**	**164**
Foreign-Controlled Companies				
Taxable Income	**1.75**	**2.41**	**0.66**	**38**
Income Taxes Payable:				
Federal	0.47	0.66	0.19	41
Provincial	0.10	0.22	0.12	116
Income Taxes Payable	**0.57**	**0.88**	**0.31**	**54**
Total Industry				
Taxable Income	**2.29**	**3.25**	**0.96**	**42**
Income Taxes Payable:				
Federal	0.62	0.92	0.30	48
Provincial	0.05	0.22	0.17	—
Total Income Taxes Payable	**0.67**	**1.15**	**0.48**	**70**

Reconciliation of Book Income to Taxable Income

Book net income of the petroleum industry increased 23% ($785 million) to $4 billion in 1990 from $3.3 billion in 1989. As mentioned in previous reports, higher receipts of inter-company dividends (taxable dividends) are included in 'Book Net Income' as opposed to 'Other Additions'. As a result, net income reported for reconciliation purposes is consistently higher than that for financial reporting, where such dividends are eliminated through consolidation. Also, taxable income as shown in Tables 6.1 and 6.2 is higher than net income for financial reporting, because current year losses are added back to taxable income to arrive at the tax base, whereas financial income is shown net of losses.

Foreign-controlled companies reported book profits of $2.9 billion, up from $2.4 billion in 1989. Book deductions added back for tax purposes totalled $7.9 billion compared with deductions for tax purposes of $7.7 billion. Taxable income for this group rose 38% to $2.4 billion in 1990 from $1.8 billion in 1989.

Canadian-controlled companies reported book profits of $1.2 billion for 1990, an increase from $850 million in 1989. Non-deductible book expenses added back and tax deductions were both $4.8 billion. Taxable income jumped 57% to $845 million, while federal income tax increased 70%, due to lower tax credits.

Table 6.2
Reconciliation of Book Income to Taxable Income: 1990 vs. 1989
in billions of dollars

	Total Industry		Foreign-Controlled		Canadian-Controlled	
	1989	1990	1989	1990	1989	1990
Book Net Income	**3.3**	**4.0**	**2.4**	**2.9**	**0.8**	**1.2**
plus[a]:						
Depreciation and Amortization	2.8	2.6	1.8	1.6	1.0	1.0
Depletion	2.1	2.4	0.9	1.1	1.2	1.3
Current E&D Expensed	1.3	1.2	1.0	0.9	0.2	0.3
Non-Deductible Crown Royalties	2.1	2.4	1.4	1.5	0.7	0.9
Other Additions[a]	3.4	4.0	2.0	2.7	1.4	1.3
Total Additions	**11.7**	**12.6**	**7.1**	**7.9**	**4.5**	**4.8**
Income Prior to Tax Deductions	**15.0**	**16.7**	**9.6**	**10.7**	**5.4**	**6.0**
less:						
Capital Cost Allowance	2.8	2.4	1.7	1.3	1.1	1.1
Resource Allowance	1.8	2.3	1.1	1.4	0.7	1.0
Canadian Exploration Expenses	1.4	1.5	0.8	0.9	0.6	0.6
Canadian Development Expenses	0.8	0.8	0.4	0.4	0.4	0.4
Canadian Oil & Gas Property Expenses	0.5	0.6	0.2	0.3	0.3	0.3
Earned Depletion Allowance	0.2	0.3	0.2	0.2	0.1	0.1
All Other Deductions[b]	3.7	4.6	2.2	3.3	1.4	1.2
Total Deductions	**11.2**	**12.4**	**6.7**	**7.7**	**4.5**	**4.8**
Net Income for Tax Purposes	**3.7**	**4.2**	**2.9**	**3.0**	**0.9**	**1.2**
less:						
Non-Capital Losses	0.4	0.4	0.4	0.3	—	0.1
Taxable Dividends	1.9	1.1	1.4	0.7	0.5	0.4
Other Deductions	—	0.1	—	—	—	—
plus:						
Current Year Non-Capital Losses	0.8	0.6	0.6	0.5	0.2	0.1
Taxable Income (Tax Base)	**2.3**	**3.3**	**1.8**	**2.4**	**0.5**	**0.8**
Income Taxes Payable	0.7	1.2	0.6	0.9	0.1	0.3
Tax Pools Remaining	26.1	25.2	13.3	12.6	12.7	12.6
Non-Capital Losses Remaining	1.8	1.6	1.0	0.8	0.8	0.9

Notes:
(a) The additions represent charges that are not allowable for income tax purposes.
(b) A complete breakdown of these items can be found in Appendices B17 to B20.

Tax Pools Remaining

The petroleum industry's tax pools[1] (Appendix A25) amounted to $25.2 billion at the end of 1990, down $855 million from 1989. Although total pool deductions were slightly lower in 1990, as a result of reduced rates introduced by Tax Reform, overall additions to Capital Cost Allowance and Canadian Oil and Gas Property Expense pools declined substantially. All tax pools, with the exception of Canadian Exploration Expense had lower balances at the end of 1990. In addition, tax pool claims were all up except for Capital Cost Allowance claim which dropped by over $450 million.

Tax Expenditures[2]

The Resource Allowance claim increased $510 million, as a result of improved resource profits in the upstream segment. This deduction, which is provided to compensate for the non-deductibility of Crown royalties reached 96% of royalties in 1990 vs. 84% in 1989. This increase was the result of higher resource income in 1990 from oil sands operations that paid little if any provincial royalties. This situation actually saw resource allowances for Canadian companies rising above their provincial royalties in 1990.

The Earned Depletion Allowance, which was phased out in two stages ending in 1989, was still a relatively high deduction at $290 million vs. $225 million in 1989, as many companies still have large unused tax pools. Investment and Exploration Tax Credits (ITC and ETC) dropped by one-third, in response to tax changes that limited the ability to earn these credits.

Table 6.3
Selected Tax Expenditures in billions of dollars

	Total Industry		Foreign-Controlled		Canadian-Controlled	
	1989	1990	1989	1990	1989	1990
Resource Allowance	**1.80**	**2.31**	**1.12**	**1.36**	**0.68**	**0.95**
Depletion Allowance	**0.22**	**0.29**	**0.17**	**0.20**	**0.05**	**0.08**
Investment Tax Credit	**0.05**	**0.03**	**0.04**	**0.03**	**0.01**	**0.01**
Memo Item:						
Provincial Royalties	2.14	2.40	1.43	1.53	0.71	0.87
In Percent						
Resource Allowance as a % of Provincial Royalties	84	96	78	89	96	110

(1) Tax pools are accumulated eligible expenditures available to reduce net income for tax purposes in subsequent years.

(2) The tax system does not permit the petroleum industry to deduct certain costs and allowances in computing taxable income. But, reflecting the unique nature of exploration activities and resource development, the industry is allowed credits, some of which do not apply to other sectors of the economy. Cumulatively these are referred to as tax expenditures. The most important examples of tax expenditures are accelerated write-offs, resource allowances, depletion allowances and investment tax credits. Other tax expenditures of minor importance are detailed in Appendices B17 to B20. For a fuller discussion of tax expenditures see "Account of the Cost of Selective Tax Measures", August 1985, Department of Finance.

7

Additional Financial Results — Third Quarter 1991

This chapter was prepared using preliminary quarterly data submitted by individual companies to the PMA via Statistics Canada. In contrast to the semi-annual PMA survey presentation, the report covers the combined results of upstream, downstream and other Canadian operations but excludes the results of companies' foreign activities. In addition, many small companies included in the regular PMA survey are not included here. Nevertheless, the information contained in this analysis gives a reliable overview of the industry's financial performance for the third quarter of 1991.

Third Quarter Results

Net income from total operations declined $740 million from $755 million in the third quarter of 1990 to $15 million in the corresponding 1991 period. The Middle East conflict and the threat of interruption of oil supplies pushed international crude oil prices to relatively high levels in the third quarter of 1990. Declining crude oil and marketable natural gas prices, and generally low downstream margins reduced the third quarter 1991 net income to only $15 million. In addition, write-offs of about $150 million were reported by petroleum companies during the third quarter of 1991. Internal cash flow fell 31% to $1.5 billion in the third quarter of 1991 from the same 1990 period.

Table 7.1
Net Income and Cash Flow by Industry Segment: Third Quarter
in millions of dollars

	1990	1991	Change	%
Integrateds and Refiners				
Net Income	445	53	-392	-88
Cash Flow	1050	590	-460	-44
Oil and Gas Producers				
Net Income	312	-38	-350	-112
Cash Flow	1154	933	-221	-19
Total Industry				
Net Income	757	15	-742	-98
Cash Flow	2204	1524	-680	-31

First Nine Months Results

The third quarter data added to the first six months activities reported to the PMA yield a loss of $245 million in the first nine months of 1991 compared with a net profit of $1.6 billion over the corresponding period in 1990. Cash flow declined 21% ($1.3 billion) to $4.9 billion in the first nine months of 1991 from $6.2 billion over the same period in 1990.

Table 7.2
Net Income for Total Operations: First Nine Months in millions of dollars

	1990	1991	Change	%
First Half	813	- 258	- 1071	—
Third Quarter	757	15	- 742	- 98
First Nine Months	**1570**	**- 243**	**- 1813**	**—**

Table 7.3
Cash Flow for Total Operations: First Nine Months in millions of dollars

	1990	1991	Change	%
First Half	4002	3400	- 602	- 15
Third Quarter	2204	1524	- 680	- 31
First Nine Months	**6206**	**4924**	**- 1282**	**- 21**

8

Employment in the Upstream Segment

The PMA obtains employment data and related information from Statistics Canada through a Section 12 agreement under the Statistics Act. The six year data series assembled, commences in 1985, at the peak of crude oil prices in Canada, and continue through to 1990 when crude oil prices were, on average, about two-thirds of the1985 price level.

The sharp decline in crude oil and natural gas prices has forced companies to reduce operating costs. A variety of corporate strategies have been adopted: the rationalization of operations, sale of producing assets, and the reduction of personnel.

As with most *Monitoring Report* chapters, this one relates only to the activities of PMA reporting companies' upstream activities. The service and drilling industries were not covered, nor were data presented on contract workers employed by reporting companies. More precisely, the group of about 110 energy enterprises whose data enter into this analysis of employment is of constant composition, after taking account of mergers and acquisitions, in each of the six years for which data are available. These corporations, all of which file returns with this Agency, accounted for virtually all of the industry upstream revenues, as determined by the PMA, in 1990. Companies reported employment data for the conventional upstream sector only. Companies were requested to exclude downstream activities and non-petroleum operations but some may have slipped through into the 'All Other' category. In addition, it may have been difficult for some companies to split out management that is not associated with non-petroleum related activity. Thus, while employment data were requested for the upstream segment, complete consistency of the data to the survey definitions cannot be ensured.

Total Employment

Employment (both casual and full time) within the conventional upstream segment of petroleum companies has fallen steadily from 1985 to 1990 (Appendix A26). By 1990, the decline was 4,375 workers, or 12% of the 1985 overall workforce of 35,170. As crude oil and natural gas prices dropped in 1986, companies attempted to reduce labour costs. Operating efficiencies were sought by rationalizing operations through the sale or purchase of producing assets. This together with mergers and takeovers resulted in the reduction of the workforce engaged in overlapping activities.

Table 8.1
Upstream Employees[1]: 1985 — 1990 in average[2] number of employees

	1985	1986	1987	1988	1989	1990
Exploration	6,770	6,113	5,039	4,777	4,621	4,513
Production	14,007	14,353	14,011	15,410	15,353	14,098
All Other	14,391	13,191	13,361	12,122	11,331	12,183
Total	**35,168**	**33,657**	**32,411**	**32,309**	**31,304**	**30,794**
of which, Field Operations, Plant, etc.	8,458	8,779	8,592	9,107	9,112	8,697

(1) Reflects the upstream conventional activities of 110 PMA reporting companies for which consistent data were reported.

(2) Averages were calculated on the basis of data reported quarterly.

While reported financial data can be verified through a company's financial reports, the verification of employment data is more problematic because there are no public sources from which to check the data. Aggregate employment figures by company are readily available to anyone completing the 'Survey Questionnaire', but many companies do not classify their own staff by employment category. Individual firms often have trouble providing accurate information on employment by department or function, i.e. exploration or production, management or administration.

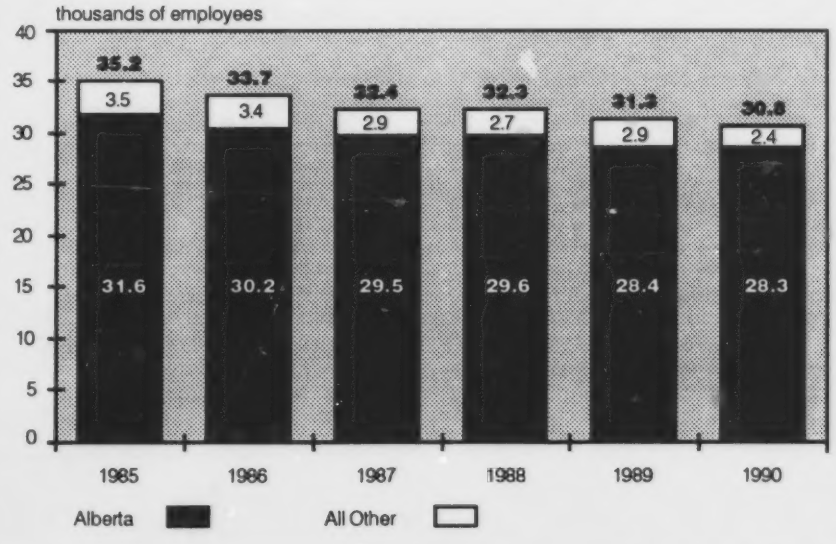
Reported job category classifications may depend upon the personal judgement of the survey respondent. Changes in personnel completing the questionnaire may lead to changes in the reported employment mix. A senior employee and his/her staff may be reported as management one year, while the next year another company respondent may classify the same group of personnel as production staff. It is also sometimes difficult for respondent firms to provide employment information by province or by region.

Despite the apparent limitations of reported employment data, it is felt that the aggregate figures do provide a valid and reliable 'broad brush' indication of overall employment levels and trends in the Canadian petroleum industry.

Employment by Region

On average, Alberta represents about 91% of the upstream workforce in Canada. Between 1985 and 1990, employment in Alberta declined 10% from 31,635 to 28,350 employees. Employment in other provinces and frontier regions fell by one-third or, 1,090 over the six years to 2,445 employees. The decline of crude oil prices and the elimination of incentive grants negatively affected exploration and development activities on the Canada Lands.

Chart 8.1
Employment by Region



Exploration Department

Upstream exploration expenditures peaked in 1985 at $9.3 billion. A fall of more than 30% in crude oil prices between 1985 and 1990 had a negative impact upon upstream exploration expenditures, which in 1989 and 1990 fell to the lowest level in over a decade. Total employment in the sector fell 33% (from 6,770 to 4,515) in the 1985 to 1990 period, matching the reduction in exploration expenditures.

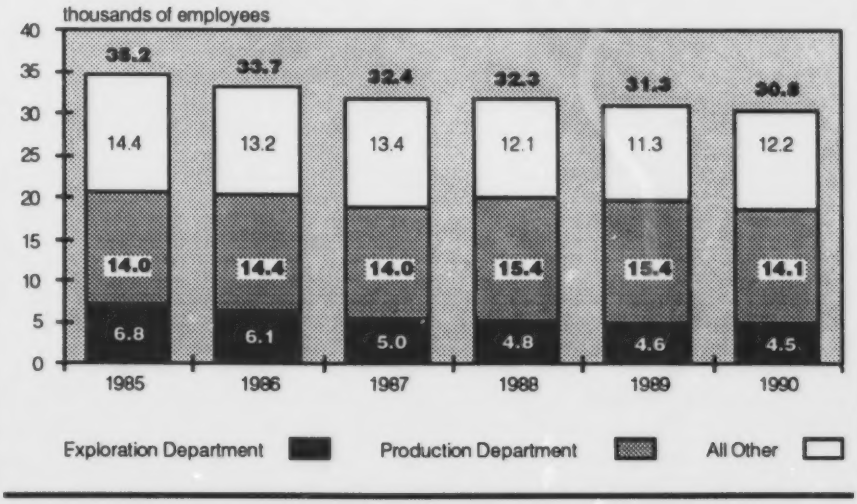
Production Department

In an effort to counter the price decline through an increase in volume of crude oil, production department employment increased from 14,005 employees in 1985 to a peak of 15,410 in 1988, before decreasing to 14,100 in 1990 — up less than 1% from the 1985 level. As prices declined, the industry attempted to maintain the level of cash flow by increasing production of crude oil and natural gas, thus employment levels in the production department did not experience the same severe declines as in the exploration departments. In addition, the improved market for marketable natural gas saw an increase of gas plants which in turn required more employees.

All Other Employees

This category of employee represents management and administration workers. There was a decline in this category of 2,210 employees over the six year period examined.

Chart 8.2
Employment by Category



Appendices

Appendix A Supplementary Information

A1

Year in Review

1991

Jan 17
The Paris-based International Energy Agency (IEA) called upon member states to release an additional 2.5m bbl/day of oil onto world oil markets to reduce price volatility. Canada's share of the commitment was 115,000 bbl/day, to be achieved through demand restraint and commercial stockdraw measures.

April 15
Energy, Mines and Resources Canada contributed $1.5 million as part of a multi-departmental, Canadian response to official requests from Qatar and Bahrain to assist in the clean-up of the oil spill following the Persian Gulf War.

July 5
The Minister of Energy, Mines and Resources released the National Energy Board's (NEB) report on the Sarnia-Montreal Pipeline which reviewed the prospects and implications of closure of the facility. The pipeline was drained and filled with inert nitrogen. It will be maintained until it is reactivated at some future date.

October 11
Construction began on the Energy Diversification Research Laboratory (EDRL) in Varennes, Québec. R & D activities at the laboratory will focus on energy technologies that can be commercialized in the short and medium term.

October 29
The Minister of Energy, Mines and Resources tabled the 'National Energy Efficiency and Alternative Energy Act', which is intended to establish national energy efficiency regulations for equipment imported into Canada and traded interprovincially.

November 22
Agreement was reached on the apportionment of financial risk between major players in the Hibernia Offshore oil development project. Production from Hibernia is expected to begin in 1996 and to reach an average production plateau of 110,000 barrels per day.

A2 Petroleum Supply and Demand Summary[a] [b]

First Six Months

	1990	1991	Change
	thousands of m^3/day		%
Production			
Crude Oil	259	261	1
Natural Gas Liquids[c]	50	55	10
Total Production	**309**	**316**	**2**
Net Exports[d]			
Crude Oil	17	50	191
Natural Gas Liquids	19	27	41
Refined Products	11	22	102
Total Net Exports	**47**	**99**	**110**
Consumption			
Natural Gas Liquids	38	45	19
Refined Products	239	222	– 7
Total Consumption	**277**	**266**	**– 4**

Notes:

(a) Petroleum includes conventional and synthetic crude oil and natural gas liquids (propane, butane and ethane) derived from gas processing and gas reprocessing plants. Data on the production, net exports and consumption do not represent a complete supply/demand balance as industry's own use and stock changes are not shown.

(b) Figures represent total industry activity and are derived from a number of sources:
- Production – Statistics Canada (Catalogue 26–006)
- Net Exports – EMR, Oil and Gas Branch
- Consumption – Statistics Canada (Catalogue 45–004)

(c) Does not include refinery production of 9.4 thousand m^3/d in the first six months of 1991 and 8.4 thousand m^3/d in the corresponding1990 period.

(d) On a gross basis, crude oil imports (including exchange receipts) for the first six months of 1990 and 1991 were 83,800 m^3/d and 76,300 m^3/d (527,300 b/d and 480,200 b/d) respectively, or 27% and 30% of domestic consumption in those periods.

A3 Natural Gas Supply and Demand Summary[a]

First Six Months

	1990	1991	Change
	millions of m^3/day		%
Production			
Gross New Production	371	403	9
less:			
Injected, Shrinkage and Adjustments[b]	67	75	13
Indigenous Supply	304	328	24
less:			
Producer Consumption	32	34	7
Marketable Production	**272**	**294**	**8**
Net Exports	**105**	**127**	**21**
Consumption			
Energy Use	159	163	2
Non–energy Use	10	10	—
Converted to Electricity and Other[c]	30	28	– 6
Total Consumption	**199**	**201**	**3**
NEB Export Authorization	**162**	**162**	**0**

Notes:

(a) Figures represent total industry activity and are derived from a number of sources:
- Production – Statistics Canada (Catalogue 26–006)
- Net Exports – EMR, Oil and Gas Branch
- Consumption – Statistics Canada (Catalogue 45–004)

(b) Includes stock variations.

(c) Adjusted to represent total domestic consumption including producer consumption and stock variations.

A4 **Canadian Natural Gas Prices** in dollars per gigajoule

	Field Gate Including Export Flow Back	Alberta Border	Toronto City Gate	Weighted Ontario Sales Realization	Ontario Market		
					Residential	Commercial	Industrial
1977	1.21	1.04	1.47	1.85	2.44	1.96	1.37
1978	1.44	1.28	1.77	2.14	2.74	2.22	1.90
1979	1.66	1.36	1.92	2.35	3.03	2.43	2.06
1980	2.30	1.61	2.23	2.69	3.43	2.73	2.36
1981	2.34	1.75	2.42	3.40(a)	4.24	3.41	3.03
1982	2.53	2.01	2.80	4.16(a)	4.93	4.12	3.70
1983	2.48	2.48	3.38	4.74(a)	5.72	4.78	4.15
1984	2.61	2.78	3.71	4.77	5.79	4.86	4.16
1985	2.47	2.80	3.76	4.76	5.84	4.86	4.14
1986	2.32	2.80	3.78	4.73	5.79	4.81	4.04
1987				4.44	5.70	4.66	3.55
1988				4.38	5.87	4.55	3.50
1989				4.03	5.18	4.11	3.34
1990							
Jan				4.27	5.03	4.30	3.35
Feb				4.25	5.08	4.29	3.38
Mar				4.26	5.08	4.34	3.41
Apr				4.04	4.92	4.05	3.28
May				4.03	5.37	4.13	3.27
Jun				4.01	5.79	4.24	3.28
Jul				4.11	6.24	4.21	3.33
Aug				4.10	6.38	4.24	3.30
Sep				4.08	6.31	4.37	3.27
Oct				4.07	5.47	4.14	3.31
Nov				4.09	5.05	4.09	3.35
Dec				4.29	5.17	4.30	3.42
1991							
Jan				4.31	5.07	4.26	3.42
Feb				4.31	5.10	4.27	3.45
Mar				4.33	5.16	4.32	3.44
Apr				4.49	5.60	4.73	3.34
May				4.22	5.48	4.46	3.31
Jun				4.20	6.52	4.34	3.30

Source:
Statistics Canada (Catalogue 55-002)

Note:
(a) The rising average sales realizations for the years 1981 to 1983 reflect the imposition of the Natural Gas and Gas Liquids Tax.

A5 Canadian Crude Oil Prices

	Conventional Crude Oil Wellhead Price[a]		Petroleum Compensation & Other Charges		Cost of Crude Oil Exclusive of Transportation[b]		Refiner Acquisition Cost at Montreal	
	$/bbl	$/m³	$/bbl	$/m³	$/bbl	$/m³	$/bbl	$/m³
1984								
Nov 10	29.75	187.22	7.69	48.39	37.44	235.61	39.44	248.21
1985								
Jun 1	36.40	229.06					38.30	241.02
1986								
Jan	32.79	206.34					34.76	218.93
Feb	22.20	139.70					24.18	152.16
Jul	14.60	91.88					16.58	104.34
Dec	19.23	121.01					21.30	134.04
1987								
Jan	22.74	143.10					24.87	156.51
Mar	20.36	128.13					22.48	141.47
Jul	25.17	158.39					27.32	171.92
Dec	20.95	131.84					23.14	145.62
1988								
Mar	17.67	111.20					19.81	124.66
Jun	18.43	115.98					20.55	129.32
Sep	15.94	100.31					18.05	113.71
Dec	16.04	100.94					18.15	114.22
1989								
Mar	19.84	124.83					21.99	138.34
Jun	21.53	135.47					23.68	149.00
Sep	20.57	129.45					22.77	143.29
Dec	21.62	136.06					23.81	149.84
1990								
Jan	23.56	148.26					25.76	162.11
Feb	24.16	152.04					26.37	165.59
Mar	21.84	137.44					24.04	151.28
Apr	19.11	120.26					21.49	135.24
May	19.07	120.01					21.45	134.99
Jun	16.96	106.73					19.35	121.77
Jul	18.48	116.29					20.86	131.27
Aug	28.26	177.84					30.64	192.82
Sep	35.77	225.10					38.17	240.20
Oct	38.71	243.60					41.11	258.71
Nov	34.78	218.87					37.18	233.97
Dec	28.09	176.77					30.48	191.81
1991								
Jan	25.17	158.39					27.60	173.69
Feb	20.08	126.36					22.51	141.66
Mar	19.38	121.96					21.81	137.25
Apr	20.33	127.94					22.76	143.23
May	20.72	130.39					23.14	145.62
Jun	19.68	123.85					22.10	139.08
Jul	21.41	134.73					22.83	149.96
Aug	21.48	135.17					23.90	150.40

Source:
Energy, Mines and Resources Canada, Oil and Gas Branch

Notes:
(a) Starting June 1, 1985, i.e. following deregulation, the wellhead price shown here is the Edmonton purchase price less estimated gathering costs of approximately $3.96/m³ (63¢/bbl).
(b) Gathering and transportation costs, and charges as applicable, make up the difference between the wellhead price and the refiner acquisition cost at Montreal. These costs amounted to $15.23/m³ ($2.42/bbl) on August 1, 1991.

A6 Average Crude Oil Refiner Acquisition Costs by Region

in dollars per cubic metre[1]

	British Columbia	Prairie Provinces	Ontario	Quebec[2]	Atlantic[2]	Total Canada
1990						
Jan	146.03	151.03	150.18	150.39	157.84	151.14
Feb	155.75	155.10	159.15	158.32	163.60	158.82
Mar	156.24	141.95	159.62	146.40	150.06	150.30
Apr	147.87	119.88	146.72	136.97	138.51	135.82
May	131.48	118.39	130.57	130.35	125.30	126.46
Jun	124.97	109.43	131.24	117.05	115.59	119.85
Jul	119.83	114.71	124.09	114.11	113.80	117.51
Aug	141.05	177.16	138.55	147.30	163.35	154.70
Sep	188.38	223.35	186.29	208.97	231.49	207.11
Oct	231.43	240.01	234.57	256.62	269.04	244.29
Nov	239.10	219.93	243.74	264.18	270.51	243.59
Dec	216.36	179.73	223.05	227.74	227.61	213.93
1991						
Jan	189.07	162.64	187.99	218.21	215.22	189.79
Feb	162.54	128.92	159.84	176.20	170.21	156.76
Mar	144.34	122.20	142.98	154.51	151.51	142.85
Apr	134.60	133.25	134.97	142.93	139.66	136.60
May	137.90	135.09	133.45	139.63	139.63	136.07
Jun	136.24	126.42	136.38	132.02	132.02	132.40

Source:
Energy, Mines and Resources Canada, Oil and Gas Branch

(1) The variation in average refiner acquisition cost by region is due to quality differences and the lag time between the actual purchase and delivery dates. Assuming an estimated delivery time from Edmonton to Montreal of six weeks, receipts of any given month at Montreal reflect a mixture of crude purchases made during the two previous months.

(2) The exact average cost of crude oil imports is not available for Quebec and the Atlantic region due to confidentiality considerations. Therefore, the average cost of imports for total eastern Canada has been used to determine the regional averages for Quebec and Atlantic.

A7 Average Crude Oil Transporation Costs from Edmonton

in dollars per cubic metre[1]

	Vancouver	Regina	Sarnia	Toronto	Montreal
1990					
Jan	6.39	2.25	7.52	8.21	9.85
Feb	6.39	2.25	7.60	8.29	9.94
Mar	6.39	2.25	7.54	8.23	9.88
Apr	7.07	2.76	8.27	9.10	11.03
May	8.42	2.76	8.30	9.13	11.06
Jun	8.42	2.76	8.29	9.12	11.05
Jul	8.42	2.76	8.24	9.07	11.00
Aug	8.42	2.76	8.24	9.07	10.99
Sep	8.42	2.76	8.30	9.13	11.06
Oct	8.42	2.76	8.32	9.15	11.07
Nov	8.42	2.76	8.32	9.15	11.07
Dec	8.42	2.76	8.29	9.12	11.04
1991					
Jan	9.05	2.83	8.38	9.22	11.20
Feb	9.05	2.83	8.36	9.20	11.18
Mar	9.05	2.83	8.36	9.21	11.19
Apr	9.05	2.83	8.36	9.20	11.18
May	9.05	2.83	8.34	9.19	11.17
Jun	9.05	2.83	8.32	9.17	11.14

Source:
Energy, Mines and Resources Canada, Oil and Gas Branch

(1) Includes pipeline tariffs and pipeline losses but excludes trucking charges.

A8 **Canadian Acquisition Costs vs. Product Prices** in cents per litre

	Average Unit Revenue from Total Petroleum Product Sales[1]	Average Unit Refiner Acquisition Cost (lagged 60 days)[2]	Differential (To cover R&M Costs and Profits, and Retail Margin)
1985			
Dec	33.74	23.47	10.27
1986			
Dec	23.34	12.50	10.84
1987			
Dec	24.99	15.45	9.54
1988			
Dec	20.67	10.38	10.29
1989			
Jan	21.22	10.03	11.19
Feb	21.75	10.55	11.20
Mar	22.05	11.79	10.26
Apr	22.44	12.56	9.88
May	23.35	13.16	10.19
Jun	23.36	14.11	9.25
Jul	23.71	14.46	9.25
Aug	23.55	14.38	9.17
Sep	23.48	14.25	9.23
Oct	23.19	13.49	9.70
Nov	23.39	13.41	9.98
Dec	23.27	13.83	9.44
1990			
Jan	24.30	14.07	10.23
Feb	25.00	14.33	10.67
Mar	25.12	15.11	10.01
Apr	24.96	15.88	9.08
May	25.32	15.03	10.29
Jun	24.87	13.58	11.29
Jul	24.36	12.65	11.71
Aug	24.52	11.99	12.53
Sep	25.95	11.75	14.20
Oct	29.20	15.47	13.73
Nov	32.40	20.71	11.69
Dec	33.20	24.42	8.78
1991			
Jan	33.15	24.36	8.79
Feb	31.55	21.39	10.16
Mar	29.61	18.98	10.63
Apr	27.26	15.68	11.58
May	25.49	14.29	11.20
Jun	24.72	13.66	11.06
Jul	25.64	13.61	12.03

Sources:
(1) Statistics Canada, Prices Division
(2) Energy, Mines and Resources Canada, Oil and Gas Branch

A9 Average Net Prices for Selected Major Petroleum Products and Trade Classes by Region in cents per litre[1]

First Six Months

	1990	1991	Change[2]
Regular Unleaded Gasoline – Branded Retail			
Atlantic	29.7	34.2	4.5
Quebec	30.0	34.2	4.2
Ontario	26.3	28.9	2.6
Prairies	28.7	30.3	1.6
Pacific	31.6	30.9	-0.7
Total Canada	28.4	30.9	2.5
Diesel Fuel – Commercial and Industrial			
Atlantic	22.8	27.3	4.5
Quebec	22.5	26.3	3.8
Ontario	21.9	25.7	3.8
Prairies	21.4	25.1	3.7
Pacific	22.0	25.8	3.8
Total Canada	21.9	25.7	3.8
Light Fuel Oil – Branded Retail			
Atlantic	29.6	36.3	6.7
Quebec	27.6	36.0	8.4
Ontario	31.0	36.7	5.7
Pacific	28.7	36.6	7.9
Total Canada	29.5	36.5	7.0
Heavy Fuel Oil # 6 – All trade classes			
Atlantic	12.4	12.2	-0.2
Quebec	11.8	11.9	0.1
Ontario	13.3	12.8	-0.5
Pacific	12.0	12.2	0.2
Total Canada	13.1	13.5	0.4
Total Petroleum Products[3] – All trade classes			
Atlantic	24.4	28.1	3.7
Quebec	23.6	27.1	3.5
Ontario	24.5	28.7	4.2
Prairies	26.3	29.1	2.8
Pacific	26.4	29.4	3.0
Total Canada	24.9	28.5	3.6

Source:
Statistics Canada, Prices Division

(1) Weighted average prices shown were derived from volumes and sales revenue data reported through a survey of major refiners for a wide range of finely specified products and trade classes. The prices are net of provincial road taxes, federal sales and excise taxes, and dealer margins.

(2) This represents the change in net prices compared to the year earlier period.

(3) This represents the summation of petroleum products from the sample selection reported to Statistics Canada in their survey.

A10 Petroleum Product Prices for Selected Major Products Sold to Private Brand Resellers

First Six Months

	1990		1991	
	Price ¢ / litre	Market Share[1] %	Price ¢ / litre	Market Share[1] %
Premium Unleaded Gasoline				
Quebec	23.6	13.1	26.9	16.8
Ontario	23.9	13.1	27.9	15.1
Prairies	23.5	4.8	22.1	10.7
Regular Unleaded Gasoline				
Quebec	20.4	14.1	30.8	18.4
Ontario	21.2	23.1	27.3	26.2
Prairies	21.5	7.9	29.3	15.1
Regular Leaded Gasoline[2]				
Quebec	20.3	17.3	n/a	n/a
Ontario	19.9	21.9	n/a	n/a
Prairies	19.1	13.5	n/a	n/a
Diesel Fuel				
Quebec	20.4	14.0	23.1	17.1
Ontario	20.0	8.9	22.1	10.8
Light Fuel Oil				
Quebec	19.1	23.9	24.4	24.1
Ontario	20.1	27.0	22.9	29.2
Pacific	22.5	16.6	26.9	14.6

Source:
Statistics Canada, Prices Division

(1) Reflects an estimated market share of sales by reporting refiners, excluding product imports.
(2) Leaded gasoline was phased out during 1990.

A11 Oil Products Sales Volumes: Refiners and Marketers

in millions of cubic metres
First Six Months

	Nationals			Regionals			Total		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Clean Products	23.2	22.8	- 2	11.7	12.0	3	34.9	34.8	—
Heavy and Specialty Products	4.8	3.7	- 22	2.7	3.0	11	7.5	6.7	- 11
Total Sales	**28.0**	**26.5**	**- 5**	**14.4**	**15.0**	**4**	**42.4**	**41.5**	**- 2**
less:									
Exports	1.7	1.8	4	1.5	3.0	101	3.2	4.7	49
Gross Sales in Canada	**26.3**	**24.8**	**- 6**	**12.9**	**12.0**	**- 7**	**39.2**	**36.7**	**- 6**
less:									
Sales to Other Refiners	—	—	—	1.1	0.3	- 69	1.1	0.3	- 69
Net Sales in Canada	**26.3**	**24.8**	**- 6**	**11.8**	**11.7**	**- 1**	**38.1**	**36.4**	**- 4**

A12 Net Income by Sector and Segment in millions of dollars

First Six Months

	1990	1991	Change	Change %
Canadian-Controlled Companies				
Upstream	217	87	-130	-60
Downstream	90	-121	-210	—
Other Canadian Operations	-72	1	73	—
Foreign Activities	19	26	6	33
Total Canadian-Controlled	**254**	**-7**	**-261**	**—**
Foreign-Controlled Companies				
Upstream	207	164	-43	-21
Downstream	227	-184	-410	—
Other Canadian Operations	56	-278	-333	—
Foreign Activities	70	47	-23	-33
Total Foreign-Controlled	**559**	**-251**	**-810**	**—**
Total Industry				
Upstream	425	251	-173	-41
Downstream	316	-305	-621	—
Other Canadian Operations	-16	-277	-261	—
Foreign Activities	89	72	-17	-19
Grand Total	**813**	**-258**	**-1071**	**—**

A13 Rates of Return: Canadian Petroleum Industry in percent

	1986	1987	1988	1989	1990	First Six Months 1991	Five-Year Average ending in 1990	Five-Year Average ending in 1991
Return on Average Capital Employed								
Upstream								
Canadian-Controlled Companies	-4.5	4.9	4.4	2.9	5.3	2.5	2.6	4.0
Foreign-Controlled Companies	3.7	9.0	3.0	3.2	4.1	2.4	4.6	4.3
Total Industry	-1.0	6.6	3.6	3.0	4.6	2.5	3.4	4.1
Downstream[a]								
Canadian-Controlled Companies	6.1	3.9	6.8	4.6	5.0	-2.2	5.3	3.6
Foreign-Controlled Companies	8.2	8.2	9.3	6.6	4.7	-2.6	7.4	5.2
Total Industry*	7.3	6.4	8.3	5.8	4.8	-2.4	6.5	4.6
Total Operations[b]								
Canadian-Controlled Companies	-4.6	4.8	4.7	3.6	5.4	2.2	2.8	4.1
Foreign-Controlled Companies	4.4	8.4	5.0	4.1	4.8	0.8	5.4	4.6
Total Industry	-0.9	6.4	4.8	3.9	5.1	1.5	3.9	4.3
*Memo:								
National Refiners/Marketers	7.1	5.9	6.7	5.4	3.0	-5.2	5.6	3.2
Regional Refiners/Marketers	7.8	7.7	12.0	6.5	8.6	3.3	8.5	7.6
Return on Average Equity								
Total Operations[b]								
Canadian-Controlled Companies	-19.9	5.2	5.1	2.5	5.6	0.0	-0.3	3.7
Foreign-Controlled Companies	5.9	12.6	6.0	4.0	6.5	-2.4	7.0	5.3
Total Industry	-7.5	8.9	5.5	3.3	6.0	-1.2	3.2	4.5

Notes:

(a) Downstream here represents oil products operations only, i.e. it excludes petrochemical and other downstream operations.

(b) Upstream, downstream (includes petrochemicals and other downstream activities), 'Other Canadian' and foreign operations.

A14 Rates of Return: Non–Financial Industries Excluding Petroleum

in percent

	1986	1987	1988	1989	1990	First Six Months 1991	Five–Year Average ending in 1990	Five–Year Average ending in 1991
Return On Shareholders Equity[a]								
Non–Financial Industries Excluding Petroleum	11.2	12.8	14.5	11.4	5.1	1.2	11.0	9.0
Petroleum Industry[b]	– 12.5	6.8	7.3	4.6	5.5	– 0.2	2.3	4.8
Return On Capital Employed[c]								
Non–Financial Industries Excluding Petroleum	9.1	9.8	10.4	9.0	5.8	3.1	8.8	7.7
Petroleum Industry[b]	– 0.8	5.5	6.1	4.7	5.0	3.3	4.1	4.9

Source: Statistics Canada 61–008, Quarterly Financial Statistics for Enterprises

Notes:

(a) Return on equity is defined as net profit after tax and extraordinary items, divided by average book equity. It measures the rate of return on shareholders' investment (paid–in capital and retained earnings). This measure is often used to compare the performance of companies that may vary by type and by size.

(b) Also includes wholesaling and retailing activity, contract drilling, petroleum pipelines and other services incidental to petroleum and natural gas products.

(c) Capital employed is defined as total assets less current liabilities. The net income figures used to compute rate of return on capital employed have been adjusted by adding the after–tax interest expense on borrowed funds.

A15 Reinvestment Rates in percent

First Six Months

	Total[a]		Upstream[b]		Upstream[c] plus Downstream	
	1990	1991	1990	1991	1990	1991
Integrateds & Refiners	75	126	67	85	62	114
Oil and Gas Producers						
Senior Producers	100	137	98	141	97	139
Junior Producers	126	139	134	148	133	145
Total Oil and Gas Producers	108	138	108	143	107	141
Total Industry	**96**	**134**	**95**	**124**	**87**	**131**
Canadian–Controlled	108	133	108	124	102	131
Foreign–Controlled	86	136	84	124	75	132

Notes:

(a) Total capital expenditures (net of incentive grants) as a percentage of total internal cash flow. The calculations do not reflect changes in inventories. Had changes in the cost of inventories been included, the reinvestment rate would have been 179% in 1991 vs. 100% in 1990.

(b) Upstream capital expenditures (net of incentive grants) in Canada as a percentage of upstream cash flow.

(c) Net upstream plus downstream ('petroleum–related') capital expenditures in Canada as a percentage of internal cash flow generated by petroleum–related activities.

A16 Gross Exploration Expenditures in Canada by Area in millions of dollars

First Six Months

	1990	1991	Change %
Provincial Lands			
British Columbia	226	274	21
Alberta	995	940	- 5
Saskatchewan	69	70	1
Other Provinces	8	7	- 20
Total Provincial Lands	**1298**	**1291**	**- 1**
Canada Lands			
Beaufort Sea	29	13	- 55
Labrador East	55	27	- 51
Atlantic Shelf South	15	11	- 25
Other Canada Lands	34	25	- 25
Total Canada Lands	**133**	**77**	**- 42**
Total Canada	**1432**	**1367**	**- 4**

A17 Well Completions and Metres Drilled in Canada

First Six Months

	Exploratory			Development		
	1990	1991	Change %	1990	1991	Change %
Well Completions in number of wells						
British Columbia	99	95	- 4	89	79	- 11
Alberta	1115	1082	- 3	754	1095	45
Saskatchewan	168	158	- 6	323	248	- 23
Other Provinces	35	15	- 57	57	41	- 28
Northern Canada[a]	16	12	- 25	—	1	—
Offshore[b]	1	3	200	—	1	—
Total	**1434**	**1365**	**- 5**	**1223**	**1465**	**20**
Metres Drilled in thousands						
British Columbia	158	175	11	130	129	—
Alberta	1505	1446	- 4	842	1220	45
Saskatchewan	171	165	- 4	273	284	4
Other Provinces	23	18	- 20	39	28	- 28
Northern Canada[a]	23	21	- 8	—	—	—
Offshore[b]	3	8	174	—	3	—
Total	**1883**	**1833**	**- 3**	**1284**	**1665**	**30**

Source:
Oilweek, August 19, 1991

Notes:
(a) All areas in Canada north of 60°, including Hudson Bay.
(b) East coast and West coast offshore areas.

A18 Comparison of Interest Charges with Income before Interest and Taxes: 1991 in millions of dollars[a]

First Six Months

	(1) Income Before Interest and Taxes	(2) Interest Charges Incurred	(3) Interest Coverage Ratio times
Integrateds and Refiners	**59**	**514**	**0.1**
Oil and Gas Producers			
Senior Producers	769	449	1.7
Junior Producers	223	195	1.1
Total Oil and Gas Producers	992	644	1.5
Total Industry	**1051**	**1158[b]**	**0.9**
Canadian-Controlled	681	549	1.2
Foreign-Controlled	370	609	0.6

Notes:
(a) The figures in Column 1 represent the total of income from total operations before taxes and expensed interest. Column 2 shows total interest charges incurred (both expensed and capitalized). Column 3 is the ratio of Column 1 to Column 2.
(b) In addition to the $1.1 billion of interest charges expensed in the first half of 1991, $75 million was capitalized.

A19 Dividend Payments

First Six Months

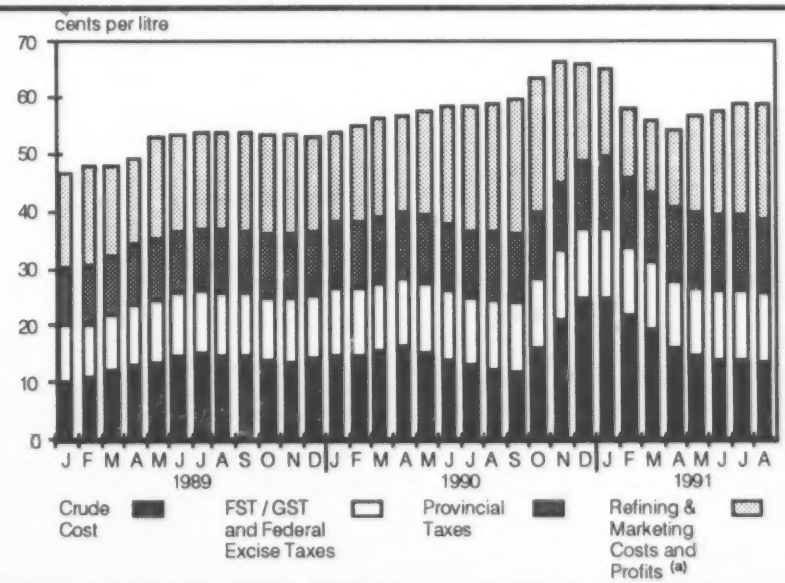
	1990	1991	1990	1991
	$ millions		% of net income[a]	
Integrateds and Refiners	**387**	**310**	**63**	**—**
Oil and Gas Producers				
Senior Producers	338	353	304	—
Junior Producers	55	71	64	158
Total Oil and Gas Producers	393	425	199	—
Total Industry	**780**	**735**	**96**	**—**
Canadian-Controlled	364	296	143	—
Foreign-Controlled	416	439	75	—

Note:
(a) Derived by dividing dividend payments for each company group by their net income from total operations (Appendices B1 to B7 and B10).

A20 **Income and Expense Statement** as percent of revenues

	1982	1983	1984	1985	1986	1987	1988	1989	1990	First Half 1991
Upstream										
Revenues	100	100	100	100	100	100	100	100	100	100
Royalties and other Payments	26	26	24	23	19	17	16	16	16	16
PGRT and other Taxes	9	8	8	7	3	—	—	—	—	—
Interest Expenses	7	6	6	6	10	9	9	7	6	6
Operating Costs and other Cash Items	19	18	18	20	32	29	38	37	33	40
Current Income Taxes	8	11	11	11	5	6	—	2	5	6
Cash Flow	26	31	32	34	32	38	37	37	39	32
Depreciation, Depletion and Amortization	8	12	10	11	25	20	24	24	22	25
Other Non-Cash Charges	5	4	4	4	7	5	9	7	6	5
Deferred Income Tax	5	5	6	6	—	2	1	3	3	- 1
Extraordinary Gains	—	—	—	- 1	- 12	1	1	—	—	—
Net Income	9	11	11	12	- 11	11	5	4	9	3
Downstream										
Revenues	100	100	100	100	100	100	100	100	100	100
Sales, Excise and other Taxes	6	6	6	7	11	15	16	17	16	11
Cost of Goods Sold	80	83	80	79	68	64	58	59	61	71
Interest Expenses	1	1	1	1	—	—	—	1	1	1
Operating Costs and other Cash Items	10	10	9	10	13	13	14	15	14	17
Current Income Taxes	- 1	- 1	—	—	2	2	3	2	2	- 1
Cash Flow	4	3	3	3	6	6	9	7	6	1
Depreciation, Depletion and Amortization	2	2	2	3	2	3	3	3	3	3
Other Non-Cash Charges	—	—	—	—	—	—	—	—	—	—
Deferred Income Tax	1	1	—	—	—	—	1	—	—	—
Extraordinary Gains	—	—	—	—	- 1	—	—	—	—	—
Net Income	1	—	1	1	3	3	5	3	3	- 2

A21 **Average Retail Price of Motor Gasoline in Canada** by components



Source:
Energy, Mines and Resources Canada, Oil and Gas Branch

Note:
(a) Refining and Marketing (R&M) costs and profits is the residual revenue available to recover the refining, marketing, transportation and distribution costs and to provide a return on investment and a dealer margin.

A22 International Flows of Funds in millions of dollars

Year: 1990	Current Account				Capital Account			
	Interest	Dividends	Business Service Payments	Total	Direct	Other	Total	Grand Total
International Transactions Related to Long-Term Investments in Canada								
Canadian-Controlled	-277	-8	-6	-291	—	1285	1285	994
Foreign-Controlled	-829	-745	-233	-1807	402	-645	-243	-2050
Inflows (Outflows)	**-1106**	**-753**	**-239**	**-2098**	**402**	**639**	**1041**	**-1057**
International Transactions Related to Long-Term Investments Abroad								
Canadian-Controlled	1	70	33	104	-122	-3	-125	-21
Foreign-Controlled	23	—	13	36	-164	-39	-203	-167
Inflows (Outflows)	**24**	**70**	**46**	**140**	**-286**	**-42**	**-328**	**-188**
Total								
Canadian-Controlled	-276	63	27	-186	-122	1282	1160	974
Foreign-Controlled	-806	-745	-220	-1771	238	-684	-446	-2217
Inflows (Outflows)	**-1082**	**-682**	**-193**	**-1957**	**116**	**597**	**714**	**-1244**
International Transactions Related to Short-Term Investments								
Canadian-Controlled					-77	258	181	
Foreign-Controlled					-175	-141	-316	
Inflows (Outflows)					**-252**	**117**	**-135**	

Year: 1989	Current Account				Capital Account			
	Interest	Dividends	Business Service Payments	Total	Direct	Other	Total	Grand Total
International Transactions Related to Long-Term Investments in Canada								
Canadian-Controlled	-185	-9	-5	-199	91	464	555	356
Foreign-Controlled	-887	-613	-251	-1751	-2909	2471	-438	-2189
Inflows (Outflows)	**-1072**	**-622**	**-256**	**-1950**	**-2817**	**2935**	**118**	**-1832**
International Transactions Related to Long-Term Investments Abroad								
Canadian-Controlled	7	145	3	155	-672	30	-642	-487
Foreign-Controlled	14	9	63	86	104	14	118	204
Inflows (Outflows)	**21**	**154**	**66**	**241**	**-568**	**44**	**-524**	**-283**
Total								
Canadian-Controlled	-178	136	-2	-44	-581	494	-87	-131
Foreign-Controlled	-873	-604	-188	-1665	-2804	2484	-320	-1985
Inflows (Outflows)	**-1051**	**-468**	**-190**	**-1709**	**-3385**	**2978**	**-407**	**-2116**
International Transactions Related to Short-Term Investments								
Canadian-Controlled					29	-602	-573	
Foreign-Controlled					-623	127	-496	
Inflows (Outflows)					**-594**	**-475**	**-1069**	

Note:
Direct transactions are those which are between related companies (non-arm's length).

A23 Capital Employed by Component in millions of dollars

	1989			1990		
	Canadian-Controlled	Foreign-Controlled	Total	Canadian-Controlled	Foreign-Controlled	Total
Long-Term Debt						
Bonds, Debentures, etc.	3756	5955	9710	4054	5297	9351
Bank loans	4104	7201	11305	5093	7510	12603
Other	579	1955	2533	441	499	939
Total Long-Term Debt	**8438**	**15111**	**23548**	**9587**	**13306**	**22894**
Equity						
Preferred Shares	3374	1332	4706	2239	1442	3681
Common Shares						
Book Value	10010	6270	16280	9206	6519	15724
Retained Earnings	4321	11913	16235	4819	12401	17219
Contributed Surplus	1030	913	1943	4098	1755	5853
Total Equity	**18735**	**20429**	**39164**	**20362**	**22116**	**42478**
Total Capital Employed	**27173**	**35540**	**62712**	**29949**	**35423**	**65371**
Minority Interest	**163**	**—**	**163**	**226**	**—**	**226**
Long-Term Debt by Interest Rate						
Fixed Rate	4322	6956	11278	4906	7108	12014
Floating (Prime or Libor)	4116	8155	12271	4681	6198	10880
- as percent of the total	*48.8*	*54.0*	*52.1*	*48.8*	*46.6*	*47.5*

A24 Long-Term Debt by Currency[1] and Interest Rate: 1990 vs. 1989 in millions of dollars

Interest Rate	Type of Currency	Long-Term Debt: 1989	1990.	Change	%
Fixed	Cdn. $	5035	4713	- 322	- 6
	U.S. $	6134	7049	915	15
	Other	109	252	143	131
	Total	**11278**	**12014**	**736**	**7**
Floating	Cdn. $	5068	5139	71	1
	U.S. $	6740	4618	- 2122	- 31
	Other	463	1122	659	142
	Total	**12271**	**10880**	**- 1391**	**- 11**
Total	Cdn. $	10103	9852	- 251	- 2
	U.S. $	12874	11668	- 1206	- 9
	Other	572	1374	806	140
	Total	**23548**	**22894**	**- 655**	**- 3**

(1) All currencies have been converted to Canadian dollars.

A 25 Current Year Deductions and Tax Pools Remaining[1] in millions of dollars

	Canadian-Controlled			Foreign-Controlled		
	Deductions	Remaining Balance	Utilization Rate[2] %	Deductions	Remaining Balance	Utilization Rate[2] %
1989						
CCA	1148	5965	16	1675	6336	21
CEE	559	1111	33	830	1188	41
CDE	373	1275	24	407	1302	24
Earned Depletion	53	544	9	172	1110	13
COGPE	281	3279	8	249	2919	8
FE&D	89	494	15	69	298	19
Total	**2523**	**12669**	**17**	**3440**	**13322**	**21**
1990						
CCA	1110	6140	15	1261	5948	17
CEE	634	1192	35	868	1299	40
CDE	447	1232	27	355	1041	25
Earned Depletion	85	425	17	205	988	17
COGPE	308	3080	9	295	2930	9
FE&D	121	494	20	43	325	12
Total	**2705**	**12569**	**18**	**3078**	**12629**	**20**

(1) Abbreviations:
CCA = Capital Cost Allowance
CEE = Canadian Exploration Expense
CDE = Canadian Development Expense
Earned Depletion = Earned Depletion Allowance
COGPE = Canadian Oil and Gas Property Expense
FE&D = Foreign Exploration and Development Expense
Totals include other tax categories that are not individually specified.

(2) Utilization rate is the ratio of deductions to remaining balances before deductions.

A 26 Upstream Employment: 1985 — 1990
in average number of employees

Total Industry	1985	1986	1987	1988	1989	1990
Exploration Department	6,770	6,113	5,039	4,777	4,621	4,513
Production Department	14,007	14,353	14,011	15,410	15,353	14,098
All Other Departments	14,391	13,191	13,361	12,122	11,331	12,183
Total Industry	**35,168**	**33,657**	**32,411**	**32,309**	**31,304**	**30,794**
of which, Field Operations, Plant, etc.	8,458	8,779	8,592	9,107	9,112	8,697

Alberta	1985	1986	1987	1988	1989	1990
Exploration Department	6,335	5,764	4,768	4,614	4,498	4,397
Production Department	11,825	12,185	12,078	13,359	13,029	12,121
All Other Departments	13,473	12,288	12,626	11,651	10,873	11,831
Total Alberta	**31,633**	**30,237**	**29,471**	**29,624**	**28,400**	**28,349**
of which, Field Operations, Plant, etc.	6,670	7,156	7,154	7,515	7,228	7,130

All Other Provinces and Canada Lands	1985	1986	1987	1988	1989	1990
Exploration Department	435	344	266	162	124	114
Production Department	2,182	2,178	1,953	2,057	2,321	1,985
All Other Departments	918	898	721	468	459	347
Total All Other	**3,535**	**3,420**	**2,940**	**2,687**	**2,904**	**2,445**
of which, Field Operations, Plant, etc.	1,788	1,623	1,439	1,593	1,884	1,567

Appendix B Complete Survey Results

B1

Income and Expense Statement – All Operations in millions of dollars
Total Industry
First Six Months

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	8905	9247	3.8	15298	14664	- 4.1	1163	1090	- 6.3	767	1106	44.2	26133	26107	- 0.1
Royalties & Other Payments	1418	1440	1.6	0	0	—	0	0	—	0	0	—	1418	1440	1.6
Sales, Excise & Other Taxes	0	0	—	2508	1601	- 36.2	2	2	- 25.7	58	64	9.9	2568	1666	- 35.1
Total Revenues after Royalties and Taxes	7487	7807	4.3	12790	13063	2.1	1161	1089	- 6.2	709	1042	47.0	22147	23001	3.9
Cost of Goods Sold	0	0	—	9379	10436	11.3	573	486	- 15.1	209	508	143.5	10160	11430	12.5
Interest Expenses	593	567	- 4.5	148	152	2.9	452	346	- 23.3	14	17	21.3	1207	1083	- 10.3
Operating Costs	3266	3627	11.0	2238	2393	6.9	320	386	20.4	156	215	37.3	5981	6621	10.7
R&D Costs (Excluding Oil Sands)	16	21	28.8	25	32	25.8	0	0	—	5	4	- 16.9	47	57	22.3
Other Expenses	74	67	- 8.9	8	- 1	—	58	21	- 64.1	5	2	- 68.0	145	89	- 38.7
Oil Sands R&D Expensed	10	9	- 9.7	0	0	—	0	0	—	0	0	—	10	9	- 9.7
E&D Expensed	555	454	- 18.2	0	0	—	13	18	41.9	29	31	8.9	597	504	- 15.6
Depreciation	543	631	16.3	446	449	0.5	86	78	- 8.2	33	37	11.8	1108	1195	7.9
Depletion	1421	1431	0.7	0	0	—	10	9	- 16.6	116	108	- 6.7	1547	1548	0.1
Write-Offs & Amortization	135	288	113.7	28	37	33.1	- 259	165	—	2	8	210.7	- 95	497	—
Non-Cash Charges and E&D	2663	2813	5.6	474	485	2.4	- 150	270	—	180	184	2.1	3167	3753	18.5
Income before Taxes	874	711	- 18.6	518	- 435	—	- 92	- 421	—	140	113	- 19.4	1440	- 32	—
Federal Income Tax[1]	359	406	13.2	153	- 47	—	- 51	- 99	—	39	28	- 29.0	500	288	- 42.4
Provincial Income Taxes	83	122	47.8	60	- 41	—	- 41	- 48	—	3	- 1	—	105	33	- 68.7
Current Income Taxes	441	528	19.7	214	- 88	—	- 92	- 146	—	42	27	- 35.3	605	321	- 47.0
Income after Current Income Taxes	432	183	- 57.6	304	- 347	—	0	- 274	—	98	86	- 12.6	835	- 353	—
Deferred Income Taxes	- 9	- 48	—	- 11	- 46	—	16	2	- 84.7	9	13	43.4	5	- 78	—
Net Income after Taxes	441	231	- 47.7	316	- 301	—	- 16	- 277	—	89	72	- 18.6	829	- 275	—
Extraordinary Items	- 17	20	—	0	- 3	—	0	0	—	0	0	—	- 16	17	—
Net Income after Extraordinary Items	424	251	- 40.8	316	- 305	—	- 16	- 277	—	89	72	- 18.6	813	- 258	—
Internal Cash Flow	3096	2996	- 3.2	778	138	- 82.3	- 150	- 4	—	278	269	- 3.1	4002	3400	- 15.0

(1) Includes Large Corporations Tax.

B2

Income and Expense Statement – All Operations in millions of dollars
Integrateds and Refiners
First Six Months

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	2830	2875	1.6	15022	14403	- 4.1	659	616	- 6.5	127	157	23.7	18638	18050	- 3.2
Royalties & Other Payments	416	420	1.0	0	0	—	0	0	—	0	0	—	416	420	1.0
Sales, Excise & Other Taxes	0	0	—	2508	1601	- 36.2	2	2	- 25.4	0	0	—	2510	1603	- 36.1
Total Revenues after Royalties and Taxes	2414	2454	1.7	12514	12802	2.3	657	614	- 6.5	127	156	23.3	15712	16027	2.0
Cost of Goods Sold	0	0	—	9271	10337	11.5	459	419	- 8.6	93	129	38.9	9823	10885	10.8
Interest Expenses	33	13	- 60.3	140	146	4.2	391	297	- 24.2	3	11	286.0	567	467	- 17.7
Operating Costs	1200	1264	5.3	2129	2288	7.5	84	79	- 5.2	13	17	28.4	3426	3648	6.5
R&D Costs (Excluding Oil Sands)	12	10	- 15.6	25	32	25.8	0	0	—	0	0	—	37	42	12.5
Other Expenses	- 5	14	—	8	- 1	—	46	0	—	0	0	—	49	13	- 73.9
Oil Sands R&D Expensed	0	0	—	0	0	—	0	0	—	0	0	—	0	0	—
E&D Expensed	182	144	- 21.3	0	0	—	5	1	- 83.0	9	17	78.9	196	161	- 18.0
Depreciation	165	227	37.4	422	431	2.0	45	41	- 10.0	1	1	- 4.6	635	701	10.4
Depletion	356	287	- 19.4	0	0	—	2	0	- 80.0	5	8	54.0	363	295	- 18.7
Write-Offs & Amortization	- 85	22	—	28	40	39.5	- 267	161	—	0	0	—	- 323	224	—
Non-Cash Charges and E&D	620	681	9.9	451	471	4.4	- 215	204	—	16	26	64.1	871	1381	58.4
Income before Taxes	555	474	- 14.7	490	- 471	—	- 110	- 385	—	2	- 26	—	939	- 408	—
Federal Income Tax[1]	127	128	0.9	147	- 51	—	- 64	- 94	—	9	- 1	—	219	- 17	—
Provincial Income Taxes	54	52	- 2.5	57	- 43	—	- 43	- 47	—	4	0	—	72	- 38	—
Current Income Taxes	181	180	- 0.1	204	- 93	—	- 107	- 141	—	13	- 1	—	291	- 55	—
Income after Current Income Taxes	375	293	- 21.7	286	- 377	—	- 3	- 244	—	- 10	- 25	—	648	- 353	—
Deferred Income Taxes	59	0	- 99.5	- 9	- 46	—	- 14	23	—	- 3	- 8	—	33	- 31	—
Net Income after Taxes	316	293	- 7.3	295	- 331	—	12	- 267	—	- 8	- 17	—	615	- 322	—
Extraordinary Items	0	0	—	0	- 3	—	0	0	—	0	0	—	0	- 3	—
Net Income after Extraordinary Items	316	293	- 7.3	296	- 334	—	12	- 267	—	- 8	- 17	—	616	- 325	—
Internal Cash Flow	994	974	- 2.0	737	93	- 87.3	- 217	- 41	—	5	1	- 83.8	1519	1028	- 32.4

(1) Includes Large Corporations Tax.

B3

Income and Expense Statement – All Operations in millions of dollars

Junior Oil and Gas Producers

First Six Months

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	1558	1684	8.1	16	23	43.3	126	131	4.2	260	243	-6.5	1961	2082	6.2
Royalties & other Payments	260	288	11.0	0	0	—	0	0	—	0	0	—	260	288	11.0
Sales, Excise & other Taxes	0	0	—	0	0	—	0	0	—	17	20	14.9	17	20	14.9
Total Revenues after Royalties and Taxes	1299	1396	7.5	16	23	43.3	126	131	4.2	243	223	-8.0	1683	1773	5.3
Cost of Goods Sold	0	0	—	0	0	—	2	3	23.0	0	0	—	2	3	23.0
Interest Expenses	187	180	-3.7	3	0	-93.7	15	6	-57.6	2	1	-33.2	206	188	-9.1
Operating Costs	479	577	20.7	8	11	46.8	74	92	24.4	87	91	4.7	646	771	19.2
R&D Costs (Excluding Oil Sands)	1	0	-73.1	0	0	—	0	0	—	0	0	—	1	0	-65.7
Other Expenses	50	45	-9.7	0	0	—	4	22	—	5	0	-100.0	59	67	12.9
Oil Sands R&D Expensed	1	1	-12.6	0	0	—	0	0	—	0	0	—	1	1	-12.6
E&D Expensed	60	66	9.8	0	0	—	0	0	—	1	0	-100.0	62	66	7.4
Depreciation	82	93	13.7	3	3	-17.1	8	6	-25.9	8	7	-12.1	101	109	7.7
Depletion	388	427	9.9	0	0	—	0	2	—	59	47	-20.5	448	476	6.3
Write-Offs & Amortization	32	53	65.6	0	-1	—	4	0	-100.0	5	6	22.7	41	58	40.5
Non-Cash Charges and E&D	564	641	13.6	3	2	-49.1	12	8	-36.1	74	60	-18.3	653	710	8.8
Income before Taxes	19	-47	—	3	10	254.9	19	2	-91.9	75	71	-5.4	116	35	-69.7
Federal Income Tax[1]	23	31	33.0	0	0	—	11	2	-83.5	17	0	-99.7	51	33	-35.5
Provincial Income Taxes	-36	-29	—	0	0	—	0	0	—	0	0	—	-36	-29	—
Current Income Taxes	-13	2	—	0	0	—	11	2	-83.0	17	0	-99.8	15	4	-71.3
Income after Current Income Taxes	31	-50	—	3	10	254.9	8	0	—	58	71	21.9	100	31	-69.4
Deferred Income Taxes	14	14	0.7	0	0	—	-1	0	—	7	11	51.8	21	26	24.2
Net Income after Taxes	17	-64	—	3	10	254.9	9	0	—	51	60	17.6	79	5	-93.8
Extraordinary Items	7	40	—	0	0	—	0	0	—	0	0	—	7	40	—
Net Income after Extraordinary Items	24	-24	—	3	10	254.9	9	0	—	51	60	17.6	86	45	-47.7
Internal Cash Flow	595	591	-0.7	6	12	92.1	20	7	-63.9	132	131	-0.6	753	741	-1.6

[1] Includes Large Corporations Tax.

B4

Income and Expense Statement – All Operations in millions of dollars
Senior Oil and Gas Producers
First Six Months

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	4516	4689	3.8	260	237	-8.6	378	343	-9.2	380	706	85.6	5534	5975	8.0
Royalties & Other Payments	742	732	-1.4	0	0	—	0	0	—	0	0	—	742	732	-1.4
Sales, Excise & Other Taxes	0	0	—	0	0	—	0	0	—	40	43	6.8	40	43	6.8
Total Revenues after Royalties and Taxes	3774	3957	4.8	260	237	-8.6	378	343	-9.2	340	663	95.0	4752	5200	9.4
Cost of Goods Sold	0	0	—	108	99	-8.4	111	64	-42.3	116	379	227.4	335	542	61.7
Interest Expenses	374	374	0.1	5	6	13.8	45	43	-4.4	9	5	-46.9	434	428	-1.2
Operating Costs	1588	1786	12.5	101	94	-7.4	163	214	31.7	57	107	89.1	1909	2202	15.4
R&D Costs (Excluding Oil Sands)	4	11	204.2	0	0	—	0	0	—	5	4	-16.9	8	15	77.9
Other Expenses	29	8	-71.5	0	0	—	8	0	-100.0	0	2	—	37	10	-74.0
Oil Sands R&D Expensed	9	8	-9.7	0	0	—	0	0	—	0	0	—	9	8	-9.8
E&D Expensed	312	244	-21.8	0	0	—	8	17	111.7	18	15	-18.6	339	276	-18.3
Depreciation	295	310	5.2	21	15	-28.2	32	32	-1.7	23	28	21.3	372	385	3.7
Depletion	676	717	6.1	0	0	—	9	6	-27.8	51	53	3.5	736	777	5.5
Write-Offs & Amortization	187	212	13.2	-1	-2	—	3	4	16.4	-2	2	—	187	215	15.0
Non-Cash Charges and E&D	1480	1492	0.8	20	13	-34.6	53	59	12.9	90	98	8.0	1643	1662	1.2
Income before Taxes	300	285	-4.9	25	25	2.9	1	-37	—	63	68	8.6	386	341	-11.6
Federal Income Tax[1]	208	247	18.5	6	4	-40.1	2	-7	—	14	28	106.0	230	272	18.1
Provincial Income Taxes	65	99	51.5	3	2	-40.8	2	0	-100.0	-2	0	—	69	100	45.4
Current Income Taxes	273	345	26.3	9	6	-40.3	4	-7	—	12	28	131.7	299	372	24.3
Income after Current Income Taxes	26	-60	—	15	20	29.4	-6	-30	—	50	40	-21.0	87	-31	—
Deferred Income Taxes	-82	-63	—	-2	1	—	31	-21	—	5	10	105.6	-48	-73	—
Net Income after Taxes	108	2	-98.1	18	19	9.6	-37	-9	—	46	30	-34.2	135	42	-68.8
Extraordinary Items	-24	-20	—	0	0	—	0	0	—	0	0	—	-24	-20	—
Net Income after Extraordinary Items	85	-18	—	18	19	9.6	-37	-9	—	46	30	-34.2	111	22	-80.1
Internal Cash Flow	1506	1432	-5.0	35	33	-6.7	47	29	-37.9	141	137	-2.4	1729	1631	-5.7

(1) Includes Large Corporations Tax

B5

Income and Expense Statement – All Operations in millions of dollars
Total Oil and Gas Producers
First Six Months

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	6075	6373	4.9	276	261	- 5.5	504	475	- 5.9	640	949	48.2	7495	8057	7.5
Royalties & other Payments	1002	1020	1.8	0	0	—	0	0	—	0	0	—	1002	1020	1.8
Sales, Excise & Other Taxes	0	0	—	0	0	—	0	0	—	58	63	9.2	58	63	9.2
Total Revenues after Royalties and Taxes	5073	5353	5.5	276	261	- 5.5	504	475	- 5.9	582	886	52.1	6435	6974	8.4
Cost of Goods Sold	0	0	—	108	99	- 8.4	114	67	- 41.1	116	379	227.4	337	545	61.5
Interest Expenses	561	554	- 1.2	8	6	- 21.3	60	50	- 17.7	11	6	- 44.3	640	616	- 3.8
Operating Costs	2066	2364	14.4	109	105	- 3.6	236	306	29.4	143	198	38.1	2555	2973	16.4
R&D Costs (Excluding Oil Sands)	5	11	135.7	0	0	—	0	0	—	5	4	- 16.9	10	15	60.1
Other Expenses	79	53	- 32.5	0	0	—	12	21	79.8	5	2	- 68.0	96	76	- 20.8
Oil Sands R&D Expensed	10	9	- 10.0	0	0	—	0	0	—	0	0	—	10	9	- 10.0
E&D Expensed	373	310	- 16.7	0	0	—	8	17	111.7	20	15	- 24.4	400	343	- 14.4
Depreciation	377	404	7.0	24	18	- 26.8	40	38	- 6.3	31	35	12.5	473	494	4.5
Depletion	1064	1144	7.5	0	0	—	9	8	- 3.5	111	100	- 9.4	1184	1253	5.8
Write-Offs & Amortization	220	265	20.9	- 1	- 3	—	7	3	- 53.3	2	7	204.6	228	273	19.7
Non-Cash Charges and E&D	2044	2133	4.4	23	15	- 36.6	64	67	3.9	164	158	- 3.8	2295	2372	3.3
Income before Taxes	318	237	- 25.4	28	36	29.1	18	- 36	—	137	139	1.0	501	376	- 25.0
Federal Income Tax(1)	232	278	20.0	6	4	- 40.1	13	- 5	—	30	28	- 6.3	282	305	8.4
Provincial Income Taxes	29	70	140.6	3	2	- 40.8	2	0	—	- 1	0	—	33	71	116.9
Current Income Taxes	261	348	33.4	9	6	- 40.3	15	- 5	—	29	28	- 2.8	314	376	19.7
Income after Current Income Taxes	57	- 110	—	18	30	65.0	3	- 30	—	108	111	2.0	187	0	—
Deferred Income Taxes	- 68	- 48	—	- 2	1	—	30	- 21	—	12	21	73.1	- 27	- 47	—
Net Income after Taxes	125	- 62	—	20	29	44.1	- 28	- 10	—	96	90	- 7.0	214	47	- 78.1
Extraordinary Items	- 17	20	—	0	0	—	0	0	—	0	0	—	- 17	20	—
Net Income after Extraordinary Items	108	- 42	—	20	29	44.1	- 28	- 10	—	96	90	- 7.0	197	67	- 65.9
Internal Cash Flow	2101	2022	- 3.8	41	45	8.1	67	36	- 45.6	273	269	- 1.5	2482	2372	- 4.4

(1) Includes Large Corporations Tax.

B6

Income and Expense Statement – All Operations in millions of dollars
Canadian-Controlled Companies
First Six Months

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	3654	3869	5.9	5361	5138	-4.2	800	764	-4.5	291	364	25.1	10107	10135	0.3
Royalties & Other Payments	538	548	1.9	0	0	—	0	0	—	0	0	—	538	548	1.9
Sales, Excise & Other Taxes	0	0	—	785	527	-32.9	2	1	-67.4	30	32	5.5	817	560	-31.5
Total Revenues after Royalties and Taxes	3116	3321	6.6	4576	4611	0.8	798	763	-4.3	261	332	27.4	8751	9027	3.2
Cost of Goods Sold	0	0	—	3455	3759	8.8	493	402	-18.4	40	77	93.9	3988	4238	6.3
Interest Expenses	316	311	-1.7	73	69	-4.8	171	145	-15.5	1	4	—	561	529	-5.7
Operating Costs	1318	1487	12.8	692	752	8.6	170	210	23.5	78	101	28.9	2259	2550	12.9
R&D Costs (Excluding Oil Sands)	1	0	-100.0	5	5	-4.9	0	0	—	0	0	—	6	5	-18.9
Other Expenses	29	18	-40.5	10	0	-96.9	4	22	—	6	5	-19.1	49	44	-9.7
Oil Sands R&D Expensed	1	0	-63.2	0	0	—	0	0	—	0	0	—	1	0	-63.2
E&D Expensed	191	92	-51.8	0	0	—	6	6	-2.9	22	28	30.8	219	126	-42.3
Depreciation	224	263	17.2	195	196	0.6	30	29	-4.3	27	33	19.8	477	521	9.2
Depletion	705	765	8.5	0	0	—	4	5	16.3	54	51	-5.7	762	820	7.5
Write-Offs & Amortization	32	49	55.2	2	3	22.1	-2	-12	—	3	1	-54.6	35	42	19.0
Non-Cash Charges and E&D	1153	1169	1.4	197	199	0.8	38	27	-27.5	106	113	6.9	1494	1509	1.0
Income before Taxes	298	336	12.7	144	-173	—	-79	-43	—	31	33	5.9	394	152	-61.5
Federal Income Tax[1]	72	74	2.6	44	-25	—	-12	-16	—	17	3	-81.4	121	37	-69.3
Provincial Income Taxes	-22	-4	—	19	-24	—	-12	-9	—	2	-1	—	-12	-38	—
Current Income Taxes	50	70	39.0	63	-49	—	-24	-24	—	19	2	-88.4	109	-1	—
Income after Current Income Taxes	247	266	7.3	81	-124	—	-54	-19	—	12	30	164.6	286	152	-46.6
Deferred Income Taxes	37	180	—	-9	-7	—	17	-20	—	-8	5	—	38	158	—
Net Income after Taxes	210	86	-59.3	90	-118	—	-72	1	—	19	26	33.2	248	-5	—
Extraordinary Items	7	2	-73.6	0	-3	—	0	0	—	0	0	—	7	-1	—
Net Income after Extraordinary Items	217	87	-59.8	90	-121	—	-72	1	—	19	26	33.2	254	-7	—
Internal Cash Flow	1401	1435	2.4	278	74	-73.2	-17	8	—	117	143	22.3	1780	1661	-6.7

(1) Includes Large Corporations Tax

B7

Income and Expense Statement – All Operations in millions of dollars
Foreign-Controlled Companies
First Six Months

	Upstream			Downstream			Other Operations			Foreign Activities			Total Operations		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Revenues	5250	5378	2.4	9937	9526	- 4.1	363	327	- 10.1	476	742	55.8	16026	15972	- 0.3
Royalties & Other Payments	880	892	1.4	0	0	—	0	0	—	0	0	—	880	892	1.4
Sales, Excise & Other Taxes	0	0	—	1723	1074	- 37.7	0	1	—	28	32	14.8	1751	1107	- 36.8
Total Revenues after Royalties and Taxes	4371	4486	2.6	8214	8452	2.9	363	326	- 10.3	448	710	58.4	13396	13973	4.3
Cost of Goods Sold	0	0	—	5924	6677	12.7	80	84	5.8	169	431	155.2	6172	7192	16.5
Interest Expenses	277	256	- 7.6	75	83	10.2	280	202	- 28.1	13	13	- 3.7	646	553	- 14.3
Operating Costs	1949	2140	9.8	1546	1641	6.2	150	175	16.8	78	114	45.7	3722	4070	9.4
R&D Costs (Excluding Oil Sands)	15	21	37.3	20	27	33.8	0	0	—	5	4	- 16.9	40	52	28.7
Other Expenses	44	49	12.2	- 1	- 1	—	54	- 1	—	0	- 3	—	97	45	- 53.4
Oil Sands R&D Expensed	9	9	- 3.4	0	0	—	0	0	—	0	0	—	9	9	- 3.5
E&D Expensed	364	362	- 0.5	0	0	—	7	13	79.3	7	3	- 58.1	378	377	- 0.1
Depreciation	318	368	15.6	251	252	0.4	55	50	- 10.4	6	4	- 27.3	631	674	6.9
Depletion	716	667	- 6.9	0	0	—	7	4	- 36.3	62	58	- 7.5	785	728	- 7.2
Write-Offs & Amortization	103	239	131.7	25	34	34.0	- 257	176	—	- 1	6	—	- 130	455	—
Non-Cash Charges and E&D	1510	1644	8.9	277	286	3.5	- 188	243	—	74	71	- 4.7	1672	2244	34.2
Income before Taxes	576	376	- 34.7	374	- 262	—	- 13	- 378	—	109	80	- 26.6	1046	- 184	—
Federal Income Tax[1]	286	332	15.9	109	- 22	—	- 38	- 83	—	22	25	10.8	380	251	- 33.9
Provincial Income Taxes	105	126	20.8	41	- 17	—	- 29	- 39	—	0	0	—	117	71	- 39.5
Current Income Taxes	391	458	17.2	150	- 39	—	- 67	- 122	—	22	25	10.5	497	322	- 35.2
Income after Current Income Taxes	185	- 82	—	224	- 223	—	54	- 255	—	86	55	- 36.2	549	- 506	—
Deferred Income Taxes	- 46	- 228	—	- 3	- 39	—	- 1	22	—	17	8	- 50.0	- 33	- 236	—
Net Income after Taxes	231	145	- 37.0	226	- 184	—	55	- 278	—	69	47	- 32.8	582	- 270	—
Extraordinary Items	- 24	18	—	0	0	—	0	0	—	0	0	—	- 23	18	—
Net Income after Extraordinary Items	207	164	- 20.9	227	- 184	—	55	- 278	—	69	47	- 32.8	559	- 251	—
Internal Cash Flow	1695	1561	- 7.9	500	64	- 87.3	- 134	- 13	—	161	126	- 21.6	2222	1738	- 21.8

[1] Includes Large Corporations Tax.

B8

Financial Performance for Main Business Segments

Upstream Operations

First Six Months

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Production of Oil Equivalent[1] in thousands of cubic metres	90280	91339	1.2	37585	38266	1.8	52696	53073	0.7
Key Financial Items in millions of dollars			%			%			%
Sales before Royalties and Taxes	8632	8686	0.6	3495	3619	3.6	5138	5067	- 1.4
Other Revenues	273	561	105.8	160	250	56.4	113	311	175.9
Gross Revenues	8905	9247	3.8	3654	3869	5.9	5250	5378	2.4
Internal Cash Flow	3096	2996	- 3.2	1401	1435	2.4	1695	1561	- 7.9
Net Income	441	231	- 47.7	210	86	- 59.3	231	145	- 37.0
Net Income plus Interest	1035	798	- 22.9	527	397	- 24.7	508	401	- 21.0
Capital Employed	55952	56248	0.5	25210	25677	1.9	30742	30571	- 0.6
Unit Revenues and Costs in dollars per cubic metre			%			%			%
Sales before Royalties and Taxes[2]	95.61	95.10	- 0.5	92.98	94.57	1.7	97.49	95.48	- 2.1
Other Revenues	3.02	6.14	103.5	4.25	6.54	53.6	2.14	5.86	173.9
Gross Revenues	98.63	101.24	2.6	97.23	101.11	4.0	99.63	101.34	1.7
Royalties & Other Payments	15.71	15.77	0.4	14.32	14.33	0.1	16.69	16.81	0.7
Revenues after Royalties & Taxes	82.93	85.47	3.1	82.91	86.78	4.7	82.94	84.53	1.9
Interest Expenses	6.57	6.21	- 5.6	8.42	8.13	- 3.4	5.26	4.82	- 8.3
Operating Costs (excluding Research)	36.18	39.71	9.8	35.06	38.86	10.8	36.98	40.33	9.1
Research & Other Expenses	1.00	0.96	- 3.2	0.81	0.46	- 43.5	1.13	1.33	17.8
Cash Income before Taxes	39.18	38.59	- 1.5	38.62	39.33	1.9	39.58	38.05	- 3.9
E&D & Oil Sands R&D Expensed	6.26	5.07	- 19.0	5.12	2.42	- 52.7	7.07	6.98	- 1.3
Depreciation	6.01	6.91	14.9	5.97	6.87	15.1	6.04	6.94	14.8
Depletion	15.74	15.67	- 0.4	18.75	19.98	6.5	13.59	12.56	- 7.5
Write-Offs	1.49	3.15	111.2	0.85	1.29	52.5	1.95	4.49	130.0
Net Income Before Taxes	9.68	7.79	- 19.5	7.93	8.77	10.7	10.93	7.08	- 35.2
Federal Income Tax[3]	3.97	4.45	11.9	1.93	1.94	0.8	5.43	6.25	15.0
Provincial Income Taxes	0.92	1.34	46.0	- 0.58	- 0.11	—	1.99	2.38	19.9
Deferred Income Taxes	- 0.10	- 0.52	—	0.99	4.70	—	- 0.87	- 4.29	—
Net Income after Taxes	4.89	2.53	- 48.3	5.60	2.24	- 60.0	4.38	2.74	- 37.5
Extraordinary Items	- 0.18	0.22	—	0.18	0.05	- 74.1	- 0.45	0.35	—
Net Income after Extraordinary Items	4.70	2.75	- 41.5	5.78	2.28	- 60.5	3.93	3.09	- 21.5
Internal Cash Flow	34.29	32.81	- 4.3	37.27	37.50	0.6	32.16	29.42	- 8.5
Ratios in percent									
Natural Gas as a percent of Total Production	49.4	51.2	N/A	54.5	55.0	N/A	45.7	48.5	N/A

(1) The conversion to oil equivalent is based on heating content; excludes NGL production from reprocessing plants and sulphur.
(2) Includes revenues from sales of NGLs from reprocessing plants and resale of purchased products.
(3) Includes Large Corporations Tax

B8(continued)

Financial Performance for Main Business Segments

Upstream Operations

First Six Months

	Integrateds/Refiners			Junior O&G Producers			Senior O&G Producers		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Production of Oil Equivalent(1) in thousands of cubic metres	27692	26955	- 2.7	17194	18606	8.2	45394	45778	0.8
Key Financial Items in millions of dollars			%			%			%
Sales before Royalties and Taxes	2768	2689	- 2.9	1451	1555	7.1	4412	4443	0.7
Other Revenues	62	186	201.2	107	129	20.7	104	246	136.7
Gross Revenues	2830	2875	1.6	1558	1684	8.1	4516	4689	3.8
Internal Cash Flow	994	974	- 2.0	595	591	- 0.7	1506	1432	- 5.0
Net Income	316	293	- 7.3	17	- 64	—	108	2	- 98.1
Net Income plus Interest	349	306	- 12.2	203	115	- 43.3	482	377	- 21.9
Capital Employed	16477	16135	- 2.1	11694	11705	0.1	27781	28408	2.3
Unit Revenues and Costs in dollars per cubic metre			%			%			%
Sales before Royalties and Taxes(2)	99.97	99.75	- 0.2	84.41	83.56	- 1.0	97.20	97.05	- 0.2
Other Revenues	2.23	6.91	209.5	6.22	6.94	11.6	2.29	5.37	134.8
Gross Revenues	102.21	106.65	4.4	90.63	90.50	- 0.1	99.49	102.43	3.0
Royalties & Other Payments	15.02	15.59	3.8	15.10	15.49	2.6	16.35	15.99	- 2.2
Revenues after Royalties & Taxes	87.18	91.06	4.4	75.53	75.01	- 0.7	83.14	86.44	4.0
Interest Expenses	1.18	0.48	- 59.3	10.85	9.65	- 11.1	8.24	8.18	- 0.8
Operating Costs (excluding Research)	43.34	46.88	8.2	27.84	31.04	11.5	34.97	39.02	11.6
Research & Other Expenses	0.22	0.87	290.2	2.97	2.44	- 17.9	0.72	0.42	- 41.5
Cash Income before Taxes	42.43	42.83	0.9	33.87	31.88	- 5.9	39.20	38.82	- 1.0
E&D & Oil Sands R&D Expensed	6.59	5.33	- 19.1	3.55	3.60	1.3	7.08	5.51	- 22.1
Depreciation	5.97	8.43	41.1	4.78	5.02	5.1	6.50	6.78	4.3
Depletion	12.87	10.66	- 17.2	22.58	22.94	1.6	14.89	15.67	5.2
Write- offs	- 3.06	0.83	—	1.88	2.87	53.1	4.13	4.63	12.3
Net Income Before Taxes	20.06	17.58	- 12.4	1.08	- 2.55	—	6.60	6.22	- 5.7
Federal Income Tax(3)	4.59	4.75	3.6	1.36	1.67	22.9	4.59	5.39	17.5
Provincial Income Taxes	1.94	1.94	0.1	- 2.09	- 1.54	—	1.43	2.15	50.2
Deferred Income Taxes	2.12	0.01	- 99.5	0.83	0.77	- 6.9	- 1.80	- 1.37	—
Net Income after Taxes	11.42	10.88	- 4.7	0.98	- 3.46	—	2.38	0.05	- 98.1
Extraordinary Items	0.00	0.00	—	0.40	2.16	—	- 0.52	- 0.44	—
Net Income after Extraordinary Items	11.42	10.88	- 4.7	1.38	- 1.29	—	1.86	- 0.39	—
Internal Cash Flow	35.91	36.14	0.6	34.60	31.75	- 8.2	33.18	31.27	- 5.8
Ratios in percent									
Natural Gas as a percent of Total Production	36.8	38.7	N/A	62.1	61.6	N/A	52.2	54.3	N/A

(1) The conversion to oil equivalent is based on heating content; excludes NGL production from reprocessing plants and sulphur.
(2) Includes revenues from sales of NGLs from reprocessing plants and resale of purchased products.
(3) Includes Large Corporations Tax.

B9

Financial Performance for Main Business Segments

Downstream Operations

First Six Months

	Total Downstream			Total Oil Products			Petrochemicals and Other		
	1990	1991	Change	1990	1991	Change	1990	1991	Change
Key Financial Items in millions of dollars			%			%			%
Revenues before Sales, Excise & Other Taxes	14810	14202	- 4.1	13031	12428	- 4.6	1779	1774	- 0.3
Other Revenues	488	461	- 5.4	461	453	- 1.8	27	8	- 68.2
Total Revenues	15298	14664	- 4.1	13493	12881	- 4.5	1805	1782	- 1.3
Sales, Excise & Other Taxes	2508	1601	- 36.2	2507	1599	- 36.2	1	2	113.2
Cost of Goods Sold	9379	10436	11.3	8180	9145	11.8	1199	1291	7.7
Operating Costs	2238	2393	6.9	1946	2031	4.3	292	363	24.4
R&D Costs (excluding Oil Sands)	25	32	25.8	18	19	6.9	7	13	72.2
Other Expenses	8	- 1	—	7	- 1	—	2	1	- 68.0
Cash Income before Interest and Taxes	1140	202	- 82.3	835	88	- 89.4	305	114	- 62.7
Interest Expenses	148	152	2.9	139	145	4.2	9	7	- 18.1
Cash Income before Taxes	992	50	- 94.9	696	- 56	—	296	107	- 64.0
Current Income Taxes	214	- 88	—	155	- 112	—	58	24	- 58.7
Internal Cash Flow	778	138	- 82.3	540	56	- 89.7	238	83	- 65.3
Depreciation & other Non-Cash Charges	474	485	2.4	361	393	8.9	113	92	- 18.5
Income after Current Income Taxes	304	- 347	—	179	- 338	—	125	- 9	—
Deferred Income Taxes	- 11	- 46	—	3	- 37	—	- 14	- 9	—
Net Income after Taxes	316	- 301	—	176	- 301	—	140	0	- 100.0
Extraordinary Items	0	- 3	—	0	- 1	—	0	- 2	—
Net Income after Extraordinary Items	316	- 305	—	177	- 302	—	140	- 3	—

	Total Oil Products[1]			National Refiners-Marketers			Regional Refiners-Marketers		
	1990	1991	Change	1990	1991	Change	1990	1991	Change
Unit Revenues and Costs in dollars per cubic metre			%			%			%
Revenues before Sales, Excise & Other Taxes	307.42	299.51	- 2.6	316.16	311.93	- 1.3	290.35	277.49	- 4.4
Other Revenues	10.88	10.91	0.3	12.07	12.46	3.2	8.57	8.18	- 4.5
Total Revenues	318.30	310.42	- 2.5	328.23	324.39	- 1.2	298.92	285.67	- 4.4
Sales, Excise & Other Taxes	59.14	38.54	- 34.8	64.65	41.55	- 35.7	48.40	33.20	- 31.4
Cost of Goods Sold	192.97	220.38	14.2	193.94	229.74	18.5	191.07	203.78	6.7
Operating Costs	45.92	48.93	6.6	53.69	58.70	9.3	30.75	31.63	2.9
R&D Costs (excluding Oil Sands)	0.43	0.47	9.2	0.64	0.72	13.4	0.02	0.01	- 27.3
Other Expenses	0.16	- 0.03	—	- 0.10	- 0.12	—	0.65	0.13	- 79.4
Cash Income before Interest and Taxes	19.69	2.13	- 89.2	15.42	- 6.21	—	28.04	16.92	- 39.7
Interest Expenses	3.28	3.49	6.4	0.01	0.01	5.7	9.67	9.66	- 0.1
Cash Income before Taxes	16.41	- 1.36	—	15.41	- 6.22	—	18.37	7.25	- 60.5
Current Income Taxes	3.66	- 2.70	—	3.46	- 5.45	—	4.07	2.19	- 46.1
Internal Cash Flow	12.75	1.34	- 89.5	11.95	- 0.76	—	14.30	5.06	- 64.6
Depreciation & Other Non-cash Charges	8.52	9.48	11.3	8.59	9.50	10.7	8.39	9.44	12.5
Income after Current Income Taxes	4.23	- 8.14	—	3.36	- 10.27	—	5.91	- 4.37	—
Deferred Income Taxes	0.07	- 0.89	—	- 0.12	- 0.68	—	0.44	- 1.25	—
Net Income after Taxes	4.16	- 7.26	—	3.48	- 9.59	—	5.47	- 3.13	—
Extraordinary Items	0.01	- 0.02	—	0.00	0.00	—	0.03	- 0.06	—
Net Income after Extraordinary Items	4.17	- 7.28	—	3.48	- 9.59	—	5.50	- 3.19	—
Ratios in percent			Change			Change			Change
'Clean Products' Sales as a percent of Total Sales Volume	82.23	83.76	1.9	82.79	85.90	3.8	81.16	79.98	- 1.4
Net Sales in Canada as a percent of Total Sales Volume	89.95	87.75	- 2.4	93.93	93.32	- 0.6	82.18	77.89	- 5.2
Export Sales as a percent of Total Sales Volume	7.51	11.44	52.4	6.07	6.68	10.0	10.31	19.89	92.8

(1) The calculation of unit revenues and costs is based on total sales volume.

B10

Sources and Uses of Funds in millions of dollars
First Six Months

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Internal Cash Flow	4002	3400	- 15.0	1780	1661	- 6.7	2222	1738	- 21.8
Net Increase in Long-Term Debt	1574	2285	45.2	1261	1456	15.4	312	829	165.5
Issue of Shares	885	791	- 10.6	708	666	- 5.9	177	125	- 29.3
Incentives, Grants and Tax Credits	41	43	4.3	18	15	- 18.0	23	28	21.4
All Other Sources	1743	1620	- 7.1	464	1016	118.8	1279	605	- 52.7
Working Capital Decrease	1103	1377	24.9	360	334	- 7.1	743	1043	40.3
Total Sources of Funds	9348	9517	1.8	4591	5149	12.1	4756	4368	- 8.2
Total Capital Expenditures in Canada	3559	4285	20.4	1764	2033	15.2	1795	2252	25.5
Capital Expenditures in U.S.A.	106	63	- 40.8	73	47	- 36.0	34	17	- 51.2
Other Foreign Capital Expenditures	206	273	32.6	98	148	51.2	108	125	15.7
Total Foreign Capital Expenditures	312	336	7.5	170	194	14.0	142	142	- 0.3
Total Company Capital Expenditures	3871	4620	19.4	1934	2227	15.1	1937	2393	23.6
Dividends:									
Common Shares	592	659	11.3	190	231	21.4	402	428	6.5
Preferred Shares	188	76	- 59.5	173	65	- 62.7	14	11	- 20.9
Total	780	735	- 5.8	364	296	- 18.7	416	439	5.5
Reduction of Equity	259	805	211.0	117	718	—	142	86	- 39.1
Total Dividends & Equity Reduction	1039	1540	48.2	481	1014	111.0	558	525	- 5.8
Net Decrease in Long-Term Debt	1160	661	- 43.0	189	105	- 44.7	971	556	- 42.7
All Other Applications	2304	1168	- 49.3	1646	770	- 53.3	658	398	- 39.5
Working Capital Increase	974	1529	56.9	341	1034	202.9	633	495	- 21.8
Total Applications of Funds	9348	9517	1.8	4591	5149	12.1	4756	4368	- 8.2

	Integrateds & Refiners			Junior O&G Producers			Senior O&G Producers		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Internal Cash Flow	1519	1028	- 32.4	753	741	- 1.6	1729	1631	- 5.7
Net Increase in Long-Term Debt	388	369	- 5.0	305	399	30.8	880	1518	72.4
Issue of Shares	116	103	- 11.4	303	201	- 33.7	466	488	4.7
Incentives, Grants and Tax Credits	16	12	- 26.0	7	2	- 68.2	17	28	62.6
All Other Sources	1169	507	- 56.7	219	209	- 4.4	355	904	154.6
Working Capital Decrease	273	451	65.1	255	278	8.6	575	649	13.0
Total Sources of Funds	3483	2469	- 29.1	1842	1830	- 0.7	4022	5218	29.7
Total Capital Expenditures in Canada	1144	1272	11.2	834	898	7.8	1581	2114	33.7
Capital Expenditure in U.S.A.	1	2	232.5	3	3	- 14.4	103	58	- 43.2
Other Foreign Capital Expenditures	17	44	159.7	123	132	8.1	66	96	45.4
Total Foreign Capital Expenditures	17	46	162.1	126	135	7.4	169	155	- 8.4
Total Company Capital Expenditures	1162	1318	13.5	960	1034	7.7	1749	2268	29.7
Dividends:									
Common Shares	291	310	6.6	36	59	62.4	265	290	9.4
Preferred Shares	96	0	- 99.7	19	12	- 34.5	73	64	- 13.4
Total	387	310	- 19.7	55	71	29.5	338	353	4.5
Reduction of Equity	217	2	- 99.1	42	114	170.3	0	689	—
Total Dividends & Equity Reduction	603	312	- 48.2	97	185	90.5	338	1042	208.2
Net Decrease in Long-Term Debt	520	160	- 69.2	150	83	- 44.6	490	418	- 14.7
All Other Applications	645	238	- 63.1	471	329	- 30.2	1189	601	- 49.5
Working Capital Increase	553	440	- 20.3	165	199	20.5	256	889	247.3
Total Applications of Funds	3483	2469	- 29.1	1842	1830	- 0.7	4022	5218	29.7

B11

Upstream Canadian Capital Expenditures by Location in millions of dollars
First Six Months

	Total Canadian			Provinces			Canada Lands		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Total Industry									
Land & Lease, Geological & Geophysical	764	668	- 12.6	740	651	- 12.0	25	17	- 30.3
Exploration Drilling	667	699	4.8	558	640	14.6	109	59	- 45.2
Total Exploration	1432	1367	- 4.5	1298	1291	- 0.6	133	77	- 42.5
Development Drilling	474	600	26.7	470	573	21.8	3	27	—
Production	827	1232	48.9	808	1089	34.8	19	143	—
Non-Conventional Heavy Oil & Oil Sands[1]	247	559	126.5	247	559	126.5	0	0	—
Total Upstream	2979	3758	26.1	2824	3512	24.4	156	246	58.0
Canadian-Controlled Companies									
Land & Lease, Geological & Geophysical	362	348	- 3.9	359	346	- 3.7	3	2	- 33.3
Exploration Drilling	404	370	- 8.5	362	349	- 3.4	42	20	- 52.0
Total Exploration	766	718	- 6.3	721	695	- 3.5	45	22	- 50.8
Development Drilling	249	298	19.4	245	287	17.0	4	11	168.2
Production	374	444	18.4	357	400	11.9	17	44	153.3
Non-Conventional Heavy Oil & Oil Sands[1]	143	340	137.6	143	340	137.6	0	0	—
Total Upstream	1533	1799	17.3	1467	1722	17.4	66	76	15.3
Foreign-Controlled Companies									
Land & Lease, Geological & Geophysical	403	320	- 20.4	381	305	- 19.9	22	15	- 30.0
Exploration Drilling	263	330	25.3	197	291	47.6	66	39	- 41.0
Total Exploration	666	650	- 2.4	578	595	3.1	88	54	- 38.2
Development Drilling	224	302	34.8	225	286	27.1	- 1	16	—
Production	453	788	74.1	451	689	52.9	2	99	—
Non-Conventional Heavy Oil & Oil Sands[1]	104	219	111.1	104	219	111.1	0	0	—
Total Upstream	1446	1959	35.5	1357	1790	31.9	89	170	89.7

(1) Includes Bi-Provincial Upgrader

B12

Capital Expenditures by Activity in millions of dollars
First Six Months

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Exploration	1432	1367	- 4.5	766	718	- 6.3	666	650	- 2.4
Development	474	600	26.7	249	298	19.4	224	302	34.8
Production	827	1232	48.9	374	444	18.4	453	788	74.1
Non-Conventional Heavy Oil & Oil Sands[1]	247	559	126.5	143	340	137.6	104	219	111.1
Total Upstream	2979	3758	26.1	1533	1799	17.3	1446	1959	35.5
Total Downstream	421	405	- 4.0	194	190	- 2.3	227	215	- 5.5
Other Energy Related[2]	6	15	138.1	2	10	—	5	5	12.0
Other Capital Expenditures	152	107	- 29.4	35	35	- 1.8	116	72	- 37.8
Total Capital Expenditures in Canada	3559	4285	20.4	1764	2033	15.2	1795	2252	25.5
Total Capital Expenditures Abroad	312	336	7.5	170	194	14.0	142	142	- 0.3
Total Company Capital Expenditures	3871	4620	19.4	1934	2227	15.1	1937	2393	23.6

	Integrateds & Refiners			Junior O&G Producers			Senior O&G Producers		
Exploration	301	241	- 20.0	456	436	- 4.5	675	691	2.4
Development	67	90	34.1	172	185	7.6	234	325	38.6
Production	213	310	45.4	174	252	44.7	441	671	52.2
Non-Conventional Heavy Oil & Oil Sands[1]	95	201	111.6	5	2	- 66.6	147	356	143.2
Total Upstream	676	841	24.5	807	874	8.3	1496	2043	36.6
Total Downstream	409	388	- 5.3	1	1	- 23.0	11	16	45.4
Other Energy Related[2]	4	5	14.3	2	10	—	1	0	- 71.7
Other Capital Expenditures	55	39	- 29.6	23	13	- 42.8	73	55	- 25.1
Total Capital Expenditures in Canada	1144	1272	11.2	834	898	7.8	1581	2114	33.7
Total Capital Expenditures Abroad	17	46	162.1	126	135	7.4	169	155	- 8.4
Total Company Capital Expenditures	1162	1318	13.5	960	1034	7.7	1749	2268	29.7

(1) Includes Bi-Provincial Upgrader
(2) Includes Uranium and Coal.

B13

Balance Sheet in millions of dollars
First Six Months

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Cash, Investments & Marketable Securities	2075	2834	36.6	1096	1906	73.9	979	928	-5.2
Accounts Receivable:									
Affiliates	940	1053	12.0	385	400	4.0	556	653	17.6
All Other	7338	5843	-20.4	2886	2303	-20.2	4452	3540	-20.5
Total	8279	6896	-16.7	3271	2703	-17.4	5008	4193	-16.3
Inventories	5619	4100	-27.0	1966	1448	-26.3	3653	2651	-27.4
Other Current Assets	758	1143	50.8	344	610	77.3	414	534	28.9
Total Current Assets	16749	14981	-10.6	6676	6667	-0.1	10073	8314	-17.5
Property Plant & Equipment	107953	110948	2.8	49259	51464	4.5	58694	59484	1.3
Less:									
Accumulated Depletion Depreciation and Amortization	37261	39418	5.8	17646	18885	7.0	19616	20533	4.7
Net Fixed Assets	70691	71531	1.2	31613	32580	3.1	39078	38951	-0.3
Other Long-Term Assets	5809	5446	-6.3	2771	2403	-13.3	3038	3043	0.1
Total Assets	93250	91958	-1.4	41060	41649	1.4	52190	50309	-3.6
Accounts Payable:									
Affiliates	1118	938	-16.1	114	27	-76.0	1003	911	-9.3
All Other	7770	6380	-17.9	3236	2522	-22.1	4534	3858	-14.9
Total	8888	7318	-17.7	3351	2549	-23.9	5537	4769	-13.9
Current Portion of Long-Term Debt	615	764	24.3	348	306	-12.2	267	459	71.9
Other Current Liabilities	3947	3451	-12.6	1958	2097	7.1	1989	1354	-31.9
Total Current Liabilities	13449	11533	-14.2	5656	4952	-12.5	7793	6582	-15.5
Long-Term Debt	20862	22418	7.5	8912	10222	14.7	11950	12196	2.1
Prepayment for Deferred Production	748	741	-0.9	404	453	12.1	344	289	-16.2
Accumulated Deferred Income Taxes	11667	11625	-0.4	4712	4877	3.5	6955	6748	-3.0
Other Long-Term Liabilities	5363	5586	4.2	1906	2036	6.8	3456	3549	2.7
Equity:									
Common Shares	15174	15586	2.7	8850	9128	3.1	6324	6459	2.1
Preferred Shares	3542	3095	-12.6	2091	1631	-22.0	1451	1465	0.9
Retained Earnings	15913	14965	-6.0	4036	3735	-7.5	11877	11230	-5.4
Other Equity	6531	6408	-1.9	4492	4616	2.8	2038	1792	-12.1
Total Shareholder's Equity	41161	40055	-2.7	19470	19110	-1.9	21691	20945	-3.4
Total Liabilities, Deferred Taxes & Equity	93250	91958	-1.4	41060	41649	1.4	52190	50309	-3.6
Working Capital	3300	3448	4.5	1020	1715	68.1	2280	1733	-24.0

	Integrateds & Refiners			Junior O&G Producers			Senior O&G Producers		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Cash, Investments & Marketable Securities	348	433	24.4	823	628	-23.7	904	1773	96.1
Accounts Receivable:									
Affiliates	365	398	9.0	175	179	2.4	400	476	18.9
All Other	4119	3418	-17.0	768	609	-20.7	2451	1816	-25.9
Total	4485	3816	-14.9	943	788	-16.4	2851	2292	-19.6
Inventories	4978	3461	-30.5	85	96	12.7	556	542	-2.4
Other Current Assets	589	820	39.4	34	77	128.8	136	246	81.1
Total Current Assets	10399	8539	-17.9	1903	1589	-16.5	4447	4854	9.1
Property Plant & Equipment	43630	44330	1.6	19996	20592	3.0	44327	46027	3.8
Less:									
Accumulated Depletion Depreciation and Amortization	15024	15845	5.5	7652	7935	3.7	14585	15638	7.2
Net Fixed Assets	28605	28485	-0.4	12344	12656	2.5	29742	30389	2.2
Other Long-Term Assets	2786	2668	-4.2	394	461	16.9	2629	2316	-11.9
Total Assets	41791	39692	-5.0	14642	14706	0.4	36817	37559	2.0
Accounts Payable:									
Affiliates	939	811	-13.6	64	87	36.2	115	40	-65.5
All Other	4456	3658	-17.9	872	690	-20.8	2442	2032	-16.8
Total	5394	4469	-17.2	936	777	-16.9	2557	2071	-19.0
Current Portion of Long-Term Debt	69	78	13.2	252	238	-5.5	294	448	52.6
Other Current Liabilities	2495	1560	-37.5	268	206	-22.9	1184	1685	42.3
Total Current Liabilities	7959	6107	-23.3	1456	1222	-16.1	4035	4204	4.2
Long-Term Debt	7765	7911	1.9	2997	3325	10.9	10101	11182	10.7
Prepayment for Deferred Production	95	74	-22.3	203	197	-2.5	450	470	4.3
Accumulated Deferred Income Taxes	5459	5421	-0.7	1447	1445	-0.2	4761	4758	-0.1
Other Long-Term Liabilities	2286	2486	8.7	1186	1144	-3.6	1890	1955	3.5
Equity:									
Common Shares	5329	5456	2.4	3823	3980	4.1	6022	6150	2.1
Preferred Shares	17	25	50.2	1746	1728	-1.0	1780	1342	-24.6
Retained Earnings	9829	9158	-6.8	558	671	20.2	5526	5136	-7.1
Other Equity	3053	3054	—	1226	994	-18.9	2252	2361	4.8
Total Shareholder's Equity	18227	17692	-2.9	7353	7373	0.3	15580	14989	-3.8
Total Liabilities, Deferred Taxes & Equity	41791	39692	-5.0	14642	14706	0.4	36817	37559	2.0
Working Capital	2441	2432	-0.4	447	367	-18.0	412	649	57.6

B14

Capital Employed by Sector and Segment[1] in millions of dollars
First Six Months

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Upstream	55952	56248	0.5	25210	25677	1.9	30742	30571	- 0.6
Oil Products	12667	14495	14.4	5068	5393	6.4	7600	9102	19.8
Other Downstream	3185	2419	- 24.1	1268	1233	- 2.7	1917	1186	- 38.2
Other Canadian Operations	4469	3034	- 32.1	1645	1792	8.9	2824	1243	- 56.0
Total Canadian Operations	76274	76196	- 0.1	33190	34094	2.7	43083	42102	- 2.3
Foreign Operations	3636	4229	16.3	2184	2604	19.2	1452	1625	11.9
Grand Total	79910	80424	0.6	35375	36697	3.7	44535	43727	- 1.8

	Integrateds & Refiners			Junior O&G Producers			Senior O&G Producers		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Upstream	16477	16135	- 2.1	11694	11705	0.1	27781	28408	2.3
Oil Products	12667	14490	14.4	0	4	—	0	0	—
Other Downstream	2678	1919	- 28.3	69	108	55.1	438	392	- 10.6
Other Canadian Operations	2151	767	- 64.3	546	351	- 35.7	1773	1916	8.1
Total Canadian Operations	33972	33312	- 1.9	12310	12168	- 1.2	29992	30716	2.4
Foreign Operations	179	273	52.8	1346	1317	- 2.2	2111	2639	25.0
Grand Total	34151	33585	- 1.7	13656	13484	- 1.3	32103	33355	3.9

(1) Capital employed is defined as total assets less current liabilities.

B15

Volume and Value of Production
First Six Months
By Province

Volume in thousands of cubic metres	Alberta 1990	Alberta 1991	Alberta Change %	British Columbia 1990	British Columbia 1991	British Columbia Change %	Saskatchewan 1990	Saskatchewan 1991	Saskatchewan Change %
Conventional Crude Oil	25667.9	24401.0	- 4.9	1129.9	923.2	- 18.3	4968.4	4431.8	- 10.8
Oil Sands	8577.1	9389.4	9.5	0.0	0.0	—	0.0	0.0	—
Marketable Natural Gas (10^6m^3)	38289.0	39573.8	3.4	5161.6	5979.9	15.9	2385.5	2605.9	9.2
Gas Plant Liquids - Fields	5509.2	5536.5	0.5	164.8	101.4	- 38.5	54.6	7.3	- 86.6
Gas Plant Liquids - Reprocessing	2156.4	2568.8	19.1	77.0	96.5	25.3	67.6	79.2	17.2
Total - Oil equivalent (1)	75908.0	76762.9	1.1	6247.5	6796.2	8.8	7309.1	6957.1	- 4.8
Value in millions of dollars			%			%			%
Conventional Crude Oil	3226.1	3174.0	- 1.6	130.6	121.4	- 7.0	492.9	436.0	- 11.6
Oil Sands	952.5	1044.2	9.6	0.0	0.0	—	0.0	0.0	—
Marketable Natural Gas	2188.3	2042.9	- 6.6	254.5	289.5	13.7	129.4	159.3	23.1
Gas Plant Liquids - Fields	475.1	507.4	6.8	13.2	10.0	- 24.6	3.4	0.4	- 86.9
Gas Plant Liquids - Reprocessing	159.3	207.6	30.3	5.5	8.0	45.0	3.9	5.2	33.8
Total (1)	6997.5	6962.0	- 0.5	399.6	422.7	5.8	626.0	595.8	- 4.8

by Company Group

Volume in thousands of cubic metres	Total Industry 1990	Total Industry 1991	Total Industry Change %	Canadian-Controlled 1990	Canadian-Controlled 1991	Canadian-Controlled Change %	Foreign-Controlled 1990	Foreign-Controlled 1991	Foreign-Controlled Change %
Conventional Crude Oil	33063.5	31098.1	- 5.9	13013.5	13231.6	1.7	20050.0	17866.5	- 10.9
Oil Sands	8577.1	9389.4	9.5	2716.0	2873.0	5.8	5861.1	6516.4	11.2
Marketable Natural Gas (10^6m^3)	46085.1	48383.7	5.0	21185.5	21769.6	2.8	24899.6	26614.1	6.9
Gas Plant Liquids - Fields	5732.7	5649.1	- 1.5	2018.7	1583.5	- 21.6	3713.9	4065.6	9.5
Gas Plant Liquids - Reprocessing	2301.0	2744.5	19.3	1175.1	1618.3	37.7	1125.9	1126.2	—
Total - Oil equivalent (1)	91005.0	92077.4	1.2	37719.5	38432.1	1.9	53285.5	53645.3	0.7
Value in millions of dollars			%			%			%
Conventional Crude Oil	3988.2	3879.2	- 2.7	1561.9	1645.9	5.4	2426.3	2233.2	- 8.0
Oil Sands	952.5	1044.2	9.6	354.6	405.8	14.4	598.0	638.4	6.8
Marketable Natural Gas	2591.3	2511.1	- 3.1	1178.8	1127.7	- 4.3	1412.5	1383.3	- 2.1
Gas Plant Liquids - Fields	492.1	518.1	5.3	164.7	147.4	- 10.5	327.5	370.7	13.2
Gas Plant Liquids - Reprocessing	168.7	220.8	30.8	90.2	137.0	51.9	78.5	83.8	6.7
Total (1)	8181.1	8147.9	- 0.4	3289.6	3370.4	2.5	4891.5	4777.5	- 2.3

Volume in thousands of cubic metres	Integrateds & Refiners 1990	Integrateds & Refiners 1991	Integrateds & Refiners Change %	Junior O&G Producers 1990	Junior O&G Producers 1991	Junior O&G Producers Change %	Senior O&G Producers 1990	Senior O&G Producers 1991	Senior O&G Producers Change %
Conventional Crude Oil	10064.1	8734.4	- 13.2	5951.7	6542.9	9.9	17047.7	15820.8	- 7.2
Oil Sands	5711.5	6279.8	10.0	126.9	150.0	18.2	2738.7	2959.6	8.1
Marketable Natural Gas (10^6m^3)	10547.9	10795.2	2.3	11045.6	11859.7	7.4	24491.6	25728.8	5.1
Gas Plant Liquids - Fields	2431.6	2068.8	- 14.9	654.6	679.3	3.8	2646.4	2901.1	9.6
Gas Plant Liquids - Reprocessing	558.0	1115.4	99.9	42.1	115.5	174.3	1700.9	1513.6	- 11.0
Total - Oil equivalent (1)	28039.2	27304.1	- 2.6	17217.8	18637.9	8.2	45748.1	46135.4	0.8
Value in millions of dollars			%			%			%
Conventional Crude Oil	1242.2	1089.7	- 12.3	733.3	818.0	11.5	2012.7	1971.4	- 2.0
Oil Sands	582.3	640.2	9.9	14.2	16.5	16.5	356.0	387.4	8.8
Marketable Natural Gas	602.4	568.7	- 5.6	608.4	615.6	1.2	1380.4	1326.8	- 3.9
Gas Plant Liquids - Fields	201.1	186.8	- 7.1	54.5	63.6	16.7	236.5	267.7	13.2
Gas Plant Liquids - Reprocessing	37.0	89.5	142.2	3.0	7.5	148.6	128.7	123.7	- 3.9
Total (1)	2707.8	2582.5	- 4.6	1415.4	1522.5	7.6	4057.9	4042.9	- 0.4

(1) Includes sulphur but excludes NGL production from reprocessing plants.

B16

Upstream Operating Costs and Royalties in millions of dollars
First Six Months
By Province

	Alberta			British Columbia			Saskatchewan		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Field, Well & Gathering Operations	1160.5	1224.9	5.6	75.0	86.8	15.7	162.8	174.5	7.2
Natural Gas Processing Plants	263.5	284.4	7.9	9.5	12.5	30.7	4.6	6.7	45.9
Oil Sands[1]	716.8	798.3	11.4	0.0	0.0	—	0.0	0.0	—
Taxes (excluding Income Taxes)	43.5	59.1	35.9	1.1	1.8	69.2	5.1	7.3	43.3
Operating Overhead	669.7	752.8	12.4	22.8	26.0	13.9	58.4	55.9	- 4.4
Total Operating Costs	2854.0	3119.4	9.3	108.4	127.1	17.2	230.9	244.4	5.9
Federal Crown Royalties	0.3	0.2	- 30.8	0.0	0.0	—	0.4	0.4	12.1
Provincial Royalties & Taxes	1035.0	1038.3	0.3	51.5	57.3	11.4	87.9	91.4	4.0
Non-Crown Royalties & Other	181.3	170.7	- 5.8	11.4	9.0	- 20.7	27.2	31.2	14.8
Total Royalties	1216.6	1209.2	- 0.6	62.8	66.3	5.6	115.4	123.0	6.6

by Company Group

	Total Industry			Canadian-Controlled			Foreign-Controlled		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Field, Well & Gathering Operations	1433.8	1526.0	6.4	596.7	652.9	9.4	837.1	873.0	4.3
Natural Gas Processing Plants	288.7	318.3	10.3	142.6	143.8	0.8	146.1	174.5	19.4
Oil Sands[1]	716.8	798.3	11.4	303.1	338.9	11.8	413.8	459.3	11.0
Taxes (excluding Income Taxes)	50.6	70.2	38.8	6.8	11.1	64.4	43.8	59.1	34.9
Operating Overhead	765.6	853.8	11.5	269.7	316.5	17.3	495.9	537.3	8.4
Total Operating Costs	3255.4	3566.5	9.6	1318.9	1463.3	11.0	1936.5	2103.2	8.6
Federal Crown Royalties	4.0	31.7	—	0.5	0.5	- 1.4	3.5	31.2	—
Provincial Royalties & Taxes	1185.3	1191.5	0.5	427.2	446.4	4.5	758.1	745.1	- 1.7
Non-Crown Royalties & Other	228.6	217.2	- 5.0	110.5	101.4	- 8.2	118.1	115.8	- 2.0
Total Royalties	1417.9	1440.4	1.6	538.2	548.3	1.9	879.7	892.1	1.4

	Integrateds & Refiners			Junior O&G Producers			Senior O&G Producers		
	1990	1991	Change %	1990	1991	Change %	1990	1991	Change %
Field, Well & Gathering Operations	408.6	404.9	- 0.9	315.5	382.2	21.1	709.7	738.9	4.1
Natural Gas Processing Plants	115.8	114.1	- 1.4	37.6	47.8	27.0	135.3	156.3	15.6
Oil Sands[1]	416.3	473.3	13.7	2.8	4.3	56.7	297.7	320.6	7.7
Taxes (excluding Income Taxes)	14.8	14.0	- 5.7	5.8	7.2	24.5	29.9	49.0	63.7
Operating Overhead	239.8	240.5	0.3	118.1	129.1	9.4	407.7	484.1	18.7
Total Operating Costs	1195.3	1246.8	4.3	479.8	570.7	18.9	1580.4	1748.9	10.7
Federal Crown Royalties	3.1	30.8	—	0.4	0.5	17.9	0.5	0.4	- 7.9
Provincial Royalties & Taxes	347.2	322.3	- 7.2	192.5	230.0	19.5	645.7	639.2	- 1.0
Non-Crown Royalties & Other	65.8	67.2	2.2	66.8	57.8	- 13.4	96.1	92.2	- 4.1
Total Royalties	416.1	420.3	1.0	259.6	288.3	11.0	742.2	731.8	- 1.4

(1) Includes overburden removal costs for mining operations.

B17

Reconciliation of Book Income to Taxable Income by Control: 1990
All Canadian Activities in millions of dollars

	Total Industry	Canadian-Controlled	Foreign-Controlled	Integrateds & Refiners	Oil & Gas Producers
Book Income After Income Taxes	4049	1190	2859	2245	1805
Income Tax Provision	1605	563	1042	736	869
Book Income Before Income Taxes	5654	1754	3901	2980	2674
Additions:					
Depreciation & Amortization	2582	991	1591	1455	1127
Depletion	2427	1342	1085	517	1910
Current E&D Expenses	1161	258	903	424	736
Non-Deductible Crown Royalties	2399	868	1532	678	1721
Loss On Disposal Of Assets Per Books	183	58	125	69	114
Taxable Capital Gain	165	32	133	85	79
Other Additions	2096	652	1445	1081	1016
Deductions:					
Capital Cost Allowance	2372	1110	1261	1127	1244
Indirect E&D Overhead Expensed	47	44	3	—	47
Resource Allowance	2308	950	1358	649	1660
Interest Expensed For Tax Purposes	183	119	64	81	103
Canadian Exploration Expense Claim	1501	634	868	358	1143
Canadian Development Expense Claim	802	447	355	195	607
Canadian Oil & Gas Property Expense Claim	604	308	295	148	456
Earned Depletion Allowance	290	85	205	108	182
Foreign E&D Expense Claim	164	121	43	22	142
Canadian E&D Expense Claim	—	—	—	—	—
Frontier Exploration Allowance	71	—	71	—	71
Supplementary Depletion Allowance	—	—	—	—	—
Gain On Disposal Of Assets Per Books	1051	129	923	734	318
Cumulative Offset Account Deduction	2	—	2	2	—
Other Deductions	3038	808	2231	1249	1789
Total Net Difference Between Book Income Before Income Taxes And Current Year Net Income For Income Taxes Purposes	- 1420	- 554	- 866	- 362	- 1059
Current Year Net Income For Income Tax Purposes	4234	1199	3035	2619	1615
Deduct:					
Non-Capital Losses	412	64	348	138	274
Taxable Dividends	1102	378	724	783	319
Other Deductions	68	42	25	30	38
Taxable Income (Net Of Losses)	2652	715	1937	1668	984
Add:					
Current Year Non-Capital Losses	597	128	469	320	277
Taxable Income (Tax Base)	3249	843	2406	1987	1261
Tax Credits:					
Federal Tax Abatement	310	79	231	199	111
Manufacturing and Processing Profits Deductions	29	9	20	22	8
Scientific Research and Experimental Development Tax Credit	15	11	4	14	1
Investment Tax Credit	33	8	25	22	11
'Exploration Tax Credit'	11	6	5	6	5
Other Federal Tax Credits	42	29	14	11	31
Income Tax Payable:					
Total Federal Tax	925	260	665	548	377
Provincial Taxes Before Rebates and Credits	393	104	290	247	146
Net Provincial Taxes	222	7	215	227	- 5
Total Income Taxes	1147	267	880	775	372
Non-Capital Losses					
Opening Balance	1797	806	991	385	1412
Current Year's Losses	597	128	469	320	277
Losses From Predecessors	50	45	5	12	38
Utilized During The Year(1)	413	65	348	138	275
Expired During The Year	26	34	- 7	- 3	30
Carried Back	376	6	370	270	106
Closing Balance	1629	874	755	312	1317

(1) Includes non-capital losses used during the year to reduce Part IV taxes.

B18

Reconciliation of Book Income to Taxable Income by Control: 1990
Upstream Activities in millions of dollars

	Total Industry	Canadian-Controlled	Foreign-Controlled	Integrateds & Refiners	Oil & Gas Producers
Book Income After Income Taxes	3191	899	2292	1402	1789
Income Tax Provision	1406	410	996	588	818
Book Income Before Income Taxes	4597	1309	3289	1990	2607
Additions:					
Depreciation & Amortization	1569	525	1045	573	997
Depletion	2426	1341	1084	517	1909
Current E&D Expenses	1151	255	895	424	726
Non-Deductible Crown Royalties	2391	860	1531	678	1713
Loss On Disposal Of Assets Per Books	170	51	119	59	111
Taxable Capital Gain	94	9	85	18	76
Other Additions	1358	298	1060	515	843
Deductions:					
Capital Cost Allowance	1654	711	944	532	1123
Indirect E&D Overhead Expensed	47	44	3	—	47
Resource Allowance	2290	935	1355	648	1642
Interest Expensed For Tax Purposes	162	98	64	59	103
Canadian Exploration Expense Claim	1483	627	856	358	1125
Canadian Development Expense Claim	796	447	349	194	602
Canadian Oil & Gas Property Expense Claim	602	308	294	148	454
Earned Depletion Allowance	289	85	204	108	181
Foreign E&D Expense Claim	163	120	43	22	141
Canadian E&D Expense Claim	—	—	—	—	—
Frontier Exploration Allowance	71	—	71	—	71
Supplementary Depletion Allowance	—	—	—	—	—
Gain On Disposal Of Assets Per Books	458	89	369	215	243
Cumulative Offset Account Deduction	2	—	2	2	—
Other Deductions	2376	463	1913	742	1633
Total Net Difference Between Book Income Before Income Taxes And Current Year Net Income For Income Taxes Purposes	- 1233	- 586	- 647	- 243	- 990
Current Year Net Income For Income Tax Purposes	3364	723	2641	1747	1618
Deduct:					
Non-Capital Losses	334	61	273	57	278
Taxable Dividends	690	124	566	437	253
Other Deductions	52	33	18	16	36
Taxable Income (Net Of Losses)	2288	504	1784	1237	1052
Add:					
Current Year Non-Capital Losses	250	101	149	12	238
Taxable Income (Tax Base)	2539	606	1933	1249	1290
Tax Credits:					
Federal Tax Abatement	235	55	179	123	112
Manufacturing and Processing Profits Deductions	9	2	7	2	8
Scientific Research and Experimental Development Tax Credit	12	11	1	11	1
Investment Tax Credit	19	2	17	8	11
'Exploration Tax Credit'	11	6	5	6	5
Other Federal Tax Credits	39	26	13	8	31
Income Tax Payable:					
Total Federal Tax	689	164	525	344	345
Provincial Taxes Before Rebates and Credits	288	57	231	156	132
Net Provincial Taxes	130	- 38	167	148	- 19
Total Income Taxes	819	126	692	493	326
Non-Capital Losses					
Opening Balance	1132	522	610	154	978
Current Year's Losses	250	101	149	12	238
Losses From Predecessors	44	39	5	12	32
Utilized During The Year(1)	327	54	273	57	270
Expired During The Year	17	26	- 9	- 12	30
Carried Back	106	6	100	1	106
Closing Balance	976	577	399	133	843

(1) Includes non-capital losses used during the year to reduce Part IV taxes.

B19

Reconciliation of Book Income to Taxable Income by Control: 1989
All Canadian Activities in millions of dollars

	Total Industry	Canadian-Controlled	Foreign-Controlled	Integrateds & Refiners	Oil & Gas Producers
Book Income After Income Taxes	3265	849	2416	1764	1501
Income Tax Provision	1164	281	883	710	454
Book Income Before Income Taxes	4429	1130	3299	2475	1955
Additions:					
Depreciation & Amortization	2809	1036	1773	1559	1249
Depletion	2067	1181	886	325	1742
Current E&D Expenses	1264	238	1026	248	1016
Non-Deductible Crown Royalties	2143	709	1434	642	1502
Loss On Disposal Of Assets Per Books	295	94	201	12	283
Taxable Capital Gain	155	78	77	41	114
Other Additions	1792	929	862	717	1075
Deductions:					
Capital Cost Allowance	2823	1148	1675	1595	1228
Indirect E&D Overhead Expensed	52	47	5	—	52
Resource Allowance	1796	679	1117	537	1259
Interest Expensed For Tax Purposes	163	59	104	94	69
Canadian Exploration Expense Claim	1389	559	830	388	1001
Canadian Development Expense Claim	800	393	407	226	574
Canadian Oil & Gas Property Expense Claim	531	281	249	119	411
Earned Depletion Allowance	225	53	172	96	128
Foreign E&D Expense Claim	158	89	69	35	123
Canadian E&D Expense Claim	1	—	1	—	1
Frontier Exploration Allowance	36	—	36	—	36
Supplementary Depletion Allowance	3	—	3	—	3
Gain On Disposal Of Assets Per Books	471	148	323	136	335
Cumulative Offset Account Deduction	3	—	2	2	—
Other Deductions	2777	1080	1698	1050	1727
Total Net Difference Between Book Income Before Income Taxes And Current Year Net Income For Income Taxes Purposes	-704	-270	-434	-735	30
Current Year Net Income For Income Tax Purposes	3725	860	2865	1740	1985
Deduct:					
Non-Capital Losses	375	6	369	186	189
Taxable Dividends	1898	545	1353	368	1529
Other Deductions	—	-11	11	11	-11
Taxable Income (Net Of Losses)	1452	321	1132	1175	277
Add:					
Current Year Non-Capital Losses	834	217	617	258	576
Taxable Income (Tax Base)	2286	538	1748	1434	853
Tax Credits:					
Federal Tax Abatement	220	45	175	147	73
Manufacturing and Processing Profits Deductions	19	3	16	16	4
Scientific Research and Experimental Development Tax Credit	1	—	1	—	1
Investment Tax Credit	52	11	41	40	12
'Exploration Tax Credit'	9	7	2	7	2
Other Federal Tax Credits	11	5	7	2	9
Income Tax Payable:					
Total Federal Tax	626	153	473	366	259
Provincial Taxes Before Rebates and Credits	261	60	201	156	106
Net Provincial Taxes	48	-51	99	133	-85
Total Income Taxes	674	101	572	500	174
Non-Capital Losses					
Opening Balance	2296	1056	1240	891	1405
Current Year's Losses	834	217	617	258	576
Losses From Predecessors	6	1	6	—	6
Utilized During The Year(1)	376	23	353	188	188
Expired During The Year	51	1	50	2	49
Carried Back	931	479	452	579	353
Closing Balance	1779	771	1008	381	1397

(1) Includes non-capital losses used during the year to reduce Part IV taxes.

B20

Reconciliation of Book Income to Taxable Income by Control: 1989
Upstream Activities in millions of dollars

	Total Industry	Canadian-Controlled	Foreign-Controlled	Integrateds & Refiners	Oil & Gas Producers
Book Income After Income Taxes	2425	500	1925	1023	1401
Income Tax Provision	788	119	669	376	412
Book Income Before Income Taxes	3213	619	2594	1399	1814
Additions:					
Depreciation & Amortization	1885	634	1251	750	1135
Depletion	2062	1180	882	325	1737
Current E&D Expenses	1231	219	1013	233	998
Non-Deductible Crown Royalties	2129	699	1431	638	1492
Loss On Disposal Of Assets Per Books	282	90	193	1	281
Taxable Capital Gain	91	60	31	8	83
Other Additions	1152	534	618	238	914
Deductions:					
Capital Cost Allowance	1779	636	1143	674	1104
Indirect E&D Overhead Expensed	52	47	5	—	52
Resource Allowance	1769	662	1107	534	1235
Interest Expensed For Tax Purposes	138	47	91	72	67
Canadian Exploration Expense Claim	1370	556	814	388	982
Canadian Development Expense Claim	823	393	430	225	598
Canadian Oil & Gas Property Expense Claim	531	281	249	119	411
Earned Depletion Allowance	218	52	166	96	122
Foreign E&D Expense Claim	158	88	69	35	123
Canadian E&D Expense Claim	1	—	1	—	1
Frontier Exploration Allowance	36	—	36	—	36
Supplementary Depletion Allowance	3	—	3	—	3
Gain On Disposal Of Assets Per Books	343	93	250	54	289
Cumulative Offset Account Deduction	3	—	2	2	—
Other Deductions	2180	685	1496	605	1576
Total Net Difference Between Book Income Before Income Taxes And Current Year Net Income For Income Taxes Purposes	-570	-125	-446	-611	41
Current Year Net Income For Income Tax Purposes	2643	494	2148	788	1854
Deduct:					
Non-Capital Losses	351	39	312	127	224
Taxable Dividends	1497	309	1188	66	1431
Other Deductions	-1	-7	5	3	-5
Taxable Income (Net Of Losses)	796	152	643	592	204
Add:					
Current Year Non-Capital Losses	570	86	485	56	514
Taxable Income (Tax Base)	1366	238	1128	648	718
Tax Credits:					
Federal Tax Abatement	135	22	114	67	68
Manufacturing and Processing Profits Deductions	7	1	6	3	3
Scientific Research and Experimental Development Tax Credit	1	—	1	—	1
Investment Tax Credit	43	7	36	32	11
'Exploration Tax Credit'	9	7	2	7	2
Other Federal Tax Credits	10	4	6	1	9
Income Tax Payable:					
Total Federal Tax	369	69	300	164	205
Provincial Taxes Before Rebates and Credits	128	18	110	55	74
Net Provincial Taxes	-84	-96	12	33	-117
Total Income Taxes	285	-27	312	197	88
Non-Capital Losses					
Opening Balance	1304	462	842	234	1070
Current Year's Losses	570	86	485	56	514
Losses From Predecessors	6	—	6	—	6
Utilized During The Year[1]	351	55	296	129	222
Expired During The Year	50	—	50	1	49
Carried Back	360	2	359	8	352
Closing Balance	1119	491	628	151	968

(1) Includes non-capital losses used during the year to reduce Part IV taxes.

B21

Current Year Claims and Tax Pools Remaining: 1990 in millions of dollars

	Total Industry		Canadian Controlled		Foreign Controlled	
	Upstream	Total	Upstream	Total	Upstream	Total
CCA — Class 10						
Opening Balance	2502	3482	998	1854	1504	1629
Net Additions	7	102	–36	17	43	85
Government Assistance	4	4	4	4	—	—
Adjustments	–46	–55	12	16	–58	–71
Claimed In Current Period	560	627	188	237	373	389
Closing Balance	1898	2898	782	1646	1116	1253
CCA — Class 28/41						
Opening Balance	2489	2540	1259	1263	1230	1277
Net Additions	1203	1230	716	718	487	512
Government Assistance	1	1	1	1	—	—
Adjustments	73	42	46	46	28	–4
Claimed In Current Period	666	670	328	329	338	342
Closing Balance	3098	3141	1692	1697	1407	1443
CCA — Class 29/39						
Opening Balance	623	1279	317	599	306	680
Net Additions	294	641	69	314	225	326
Government Assistance	—	3	—	3	—	—
Adjustments	–21	–53	–12	–23	–9	–31
Claimed In Current Period	289	512	137	246	152	267
Closing Balance	606	1351	237	642	369	709
CCA — All Other Classes						
Opening Balance	1034	5010	455	2269	579	2741
Net Additions	114	526	59	208	55	318
Government Assistance	—	—	—	—	—	—
Adjustments	– 4	–276	–14	–23	10	–253
Claimed In Current Period	139	562	58	299	81	264
Closing Balance	1006	4698	442	2156	564	2542
Investment Tax Credit						
Opening Balance	108	187	75	105	33	82
ITC Earned	52	73	6	12	46	60
Adjustments	1	3	–1	–1	2	4
ITC Claimed and/or Refunded	33	50	12	18	21	32
Closing Balance	128	211	68	97	60	114
'Exploration Tax Credit'						
Opening Balance	50	50	40	40	9	9
'ITC' Earned	11	11	5	5	5	5
Adjustments	8	8	—	—	8	8
'ITC' Claimed and/or Refunded	11	11	6	6	5	5
Closing Balance	57	57	40	40	17	17
CCEE						
Opening Balance	2231	2260	1085	1085	1146	1175
Net Additions	1785	1804	847	854	938	950
Government Assistance — 'ETC'	15	15	15	15	—	—
Government Assistance — Other	17	17	15	15	2	2
Adjustments	–39	–39	–84	–84	45	45
Claimed In Current Period	1483	1501	627	634	856	868
Closing Balance	2462	2491	1191	1192	1271	1299
Of Which Successor Balance	339	339	245	245	93	93

B21 (continued)
Current Year Claims and Tax Pools Remaining: 1990 in millions of dollars

	Total Industry		Canadian Controlled		Foreign Controlled	
	Upstream	Total	Upstream	Total	Upstream	Total
CCDE						
Opening Balance	2520	2569	1258	1259	1262	1310
Net Additions	651	648	442	443	209	205
Government Assistance	9	9	9	9	1	1
Adjustments	– 133	– 133	– 14	– 14	– 119	– 119
Claimed In Current Period	796	802	447	447	349	355
Closing Balance	2233	2273	1231	1232	1002	1041
Of Which Successor Balance	236	247	154	154	82	93
Earned Depletion Base						
Opening Balance	1569	1652	539	539	1029	1113
Net Additions	21	21	17	18	4	4
Adjustments	29	29	– 47	– 47	76	76
Claimed In Current Period	289	290	85	85	204	205
Closing Balance	1330	1413	424	425	905	988
Of Which Successor Balance	541	541	154	154	387	387
CCOGPE						
Opening Balance	5866	5869	2989	2989	2877	2879
Net Additions	680	697	412	412	267	285
Adjustments	47	47	– 14	– 14	61	61
Claimed In Current Period	602	604	308	308	294	295
Closing Balance	5991	6009	3080	3080	2911	2930
Of Which Successor Balance	518	518	409	409	109	109
Foreign E&D Expenses						
Opening Balance	794	795	501	501	294	294
Net Additions	177	189	103	115	74	74
Claimed In Current Period	163	164	120	121	43	43
Closing Balance	809	819	484	494	325	325
Frontier Exploration Allowance						
Opening Balance	175	175	6	6	170	170
Claimed In Current Period	71	71	—	—	71	71
Closing Balance	104	104	6	6	98	98
Memo Items						
Canadian E&D Overhead Expenditures (CEDOE)	229	242	29	29	200	213
Resource Profits For Resource Allowance	9161	9233	3741	3800	5420	5432
Production Royalties Received	168	203	82	117	86	86
Production Royalties Paid	319	289	121	91	198	198
Interest Capitalized for Tax Purposes	19	87	12	80	7	7
Interest Expensed for Tax Purposes	1660	2515	815	1048	844	1468
Canadian Manufacturing and Processing Profits	319	926	70	271	249	654

Appendix C Glossary of Terms

Acquisitions – the acquisition of shares or the purchase of assets of other petroleum companies. Capital outlays for acquisitions are included under the category 'All Other Uses of Funds' in Monitoring Reports. *(Acquisitions)*

All Other Sources of Funds – includes proceeds from the sale of assets or long-term investments and pre-payments received for future production and the impact of reclassifying short-term debt to long-term, such as occurred in 1984. *(Autres sources de fonds)*

All Other Uses of Funds – includes acquisitions, purchases of used machinery and equipment, and long-term investments. *(Autres affectations de fonds)*

Amortization – the depreciation, depletion or charge-off to expense of tangible and intangible assets over a period of time. It includes costs associated with mineral properties prior to the time they are developed and entered into production. *(Amortissement)*

Canada Lands – physical areas of Canada outside provincial boundaries. *(Terres du Canada)*

Canadian Control – in general, a company is considered to be Canadian-controlled if 50% or more of its voting shares are held by Canadian residents either directly or indirectly through corporations. In a few exceptional cases, when a significant block of shares is held by Canadian residents and the remaining shares are widely held, a company may be effectively Canadian-controlled even though more than 50% of the voting shares are held by non-residents. *(Contrôle canadien)*

Canadian Exploration and Development Incentive Program (CEDIP) – was designed to promote exploration and development by providing direct assistance to companies undertaking these activities in Canada. From April 1, 1987, CEDIP provided cash payments of 33 1/3% of exploration and development expenses anywhere in Canada, to a maximum of $10 million annually per company. The Income Tax Reform of June 1987 provided for the systematic phase-out of the program over approximately the same period as earned depletion. The CEDIP rate was fixed at 25% effective October 1, 1988, falling to 16 2/3% on July 1, 1989. CEDIP was ended on April 27, 1989, subject to specific grandfathering rules. *(Le programme canadien d'encouragement à l'exploration et à la mise en valeur)*

Canadian Exploration Incentive Program (CEIP) – was intended to support oil and gas exploration activities to a maximum of $3 million per corporation for each calendar year, based on 30% of eligible expenses to a ceiling of $10 million a year. Combined maximum CEIP-CEDIP eligible expenses were set at $10 million per year. The CEIP program began for oil and gas exploration on October 1, 1988 when the incentive rate for the CEDIP program fell to 25%. CEDIP incentives were limited to exploration expenses incurred under flow-through agreements, where the corporation and the investor were at arms length. The early termination of the program was announced in the federal budget of February 20, 1989, subject to grandfathering provisions. *(Le programme de stimulation de l'exploration du Canada)*

Canadian Ownership – the proportion of the total voting shares of a company held, either directly or indirectly through other corporations, by Canadian residents. *(Participation canadienne)*

Capital Employed – the net book value of total assets, less current liabilities. *(Capital utilisé)*

Capital Expenditures – are investments in new machinery, equipment, structures and resource properties, whether capitalized or charged directly to current operations. Capital expenditures may also refer to the cost of intangible assets (e.g. cost of leased equipment), capitalized interest and capitalized repair expenditures. *(Dépenses en capital)*

Conventional Oil – crude oil recoverable from a well using standard production methods. *(Pétrole classique)*

Current Income Taxes – the portion of the provision for income taxes, both federal and provincial, pertaining to the reporting period and assumed to be currently due. *(Impôts courants)*

Debt/Equity Ratio – refers to the ratio of long-term liabilities (over one year) to shareholders' equity (share capital plus retained earnings) at the end of a specific reporting period. Depending upon their terms and conditions, preferred shares may be classified as either debt or equity (see 'long-term debt'). *(Rapport d'endettement)*

Deferred Income Taxes – accrued tax obligations reflected as an expense in the income statement, but not payable in the current reporting period. Income taxes are deferred, for example, when firms write off capital assets using capital cost allowances for income tax purposes at rates higher than those used in the preparation of their financial reports. *(Impôts reportés)*

Depletion – the amount charged to expense in the company's financial statements with reference to depletable capitalized assets. This is not the earned depletion allowance calculated for income tax purposes. *(Épuisement)*

Depreciation – the amount charged to expense with reference to depreciable capitalized assets. This is not the amount of capital cost allowance that is used to compute depreciation for income tax purposes. *(Dépréciation)*

Development Expenditures – are costs associated with drilling and well completion in an area of proven oil or natural gas reserves, expenditures on field gathering and separation systems, and the cost of acquiring proven reserves. *(Dépenses de mise en valeur)*

Downstream Segment – includes refining and marketing, transportation and petrochemical operations. *(Secteur aval)*

Energy Mining – uranium and coal mining (excludes oil sands mining). *(Extraction minière des ressources énergétiques)*

Equity – the book value of shareholders' paid-up capital, contributed surplus and retained earnings. *(Avoir propre)*

Exploration Costs – costs associated with the search for oil or natural gas deposits, including all lease fees and land acquisition costs, geological and geophysical expenditures, and exploratory drilling costs whether capitalized or expensed. Exploratory drilling is generally defined as the drilling of a well outside a proven area, or within a proven area but in a previously untested zone, to determine whether oil or gas reserves exist. Also included are costs of dry wells, casing and other materials and equipment abandoned in place. *(Frais d'exploration)*

External Sources of Funds – funds obtained from sources other than internal cash flow. Long-term debt and equity are the main examples. *(Sources externes de fonds)*

Extraordinary Items – income and expenses items resulting from highly unusual transactions and are of a type that would not reasonably be expected to recur. *(Poste extraordinaire)*

Flow-Through Shares – a financial vehicle that allows a resource company to issue shares and thereby raise funds for exploration and development expenditures. In turn, the company renounces the associated tax expenses such as Canadian Exploration Expenses (CEE), Canadian Development Expenses (CDE) and Canadian Oil and Gas Property Expense (COGPE) to the purchasers of flow-through shares. Flow-through arrangements permit investors to deduct resource expenses incurred by the issuing corporation against income from other sources. *(Action accréditive)*

Full Cost Accounting – an accounting method by which all costs incurred in the search for reserves and in the acquisition, exploration and development of properties are initially capitalized within cost centres but only charged to expense as the reserves considered to be related to those costs are produced. Costs incurred include prospecting, leasing, acquisition, retention, exploration and development costs and associated indirect costs (i.e. general and administrative costs). Operating costs are expensed as incurred. *(Méthode de capitalisation du coût entier)*

Heavy Crude Oil – oil with high viscosity, recoverable only to a very limited extent by using standard production methods. *(Pétrole lourd)*

In-Situ Recovery – refers to recovery methods applicable in heavy oil and oil sands formations without the removal of conglomerates from the location. *(Récuperation 'in-situ')*

Integrated Companies – individual companies that have significant revenues in both the upstream and downstream segments. *(Sociétés intégrées)*

Internal Cash Flow – net income after taxes plus exploration and development expenditures expensed in the current period, depreciation, depletion, amortization and deferred income taxes. *(Ressources d'autofinancement)*

Junior Producers – companies that are predominantly exploration and production oriented and that individually generate less than 1% of industry upstream revenues. *(Petits producteurs)*

Large Corporations Tax (LCT) – a tax introduced in the April 27, 1989 federal budget which is levied at a rate of 0.175% on capital in excess of $10 million employed in Canada by corporations. The LCT is not deductible in computing income for tax purposes, but is creditable against the corporate 3% surtax. *(Impôt sur les grandes sociétés)*

Long-Term Debt – debt with a maturity date more than one year into the future. Preferred shares may be treated as long-term debt when they are redeemable for a fixed amount without conversion privileges or voting rights. *(Dette à long terme)*

Non-Cash Charges – items expensed in the reporting period that do not require an actual financial outlay for that period. Depreciation, depletion and amortization are the main types of non-cash charges. *(Frais non monétaires)*

Oil Equivalent Conversion – conversion of volumes of natural gas, liquefied petroleum gas and pentanes plus into equivalent volumes of crude oil,

based on the relative heat content of these hydrocarbons. *(Conversion en pétrole brut et équivalents)*

Oil Sands – deposits of sands and clays (excluding oil shales) heavily impregnated with semi-solid or solid bitumen, also known as tar sands. Athabasca, Peace River, Wabasca, Cold Lake and Buffalo Head Hills are the main Canadian resource areas. *(Sables pétrolifères)*

'Other Canadian' Operations – include drilling services, coal and uranium mining, metal mining, and other non-petroleum related activities. Corporate activities may be included under this heading. *(Autres activités au Canada)*

Production Expenditures – all spending related to the production of crude oil and natural gas, including expenditures on natural gas processing plants. *(Dépenses de production)*

Senior Producers – companies that are predominantly exploration and production oriented and that individually generate more than 1% of industry upstream revenues. *(Grands producteurs)*

Successful Efforts Accounting – an accounting method by which only costs resulting directly in identifiable future benefits through discovery, acquisition or development of reserves are capitalized. Costs that do not provide identifiable future benefits are expensed as incurred, or are written off when the properties are determined to be non-productive. Such costs include those related to geological and geophysical studies, retention of underdeveloped properties, and non-productive exploration and development efforts. *(Méthode de capitalisation du coût de la recherche fructueuse)*

Upstream Segment – activities and operations related to the search for, development, production, extraction and recovery of crude oil, natural gas, natural gas liquids and sulphur, as well as the production of synthetic oil. *(Secteur amont)*

Working Capital – current assets (cash, short-term investments, accounts receivable, inventories) less current liabilities (accounts payable, debts and obligations maturing in less than one year). *(Fonds de roulement)*

Income Tax-Related Definitions:

Capital Cost Allowance (CCA) – is the income tax equivalent of accounting depreciation. A taxpayer is permitted to deduct certain allowances in respect of the capital cost of depreciable property to the extent prescribed by the Income Tax Regulations (ITR). The June 1987 Tax Reform reduced the CCA rates for certain types of property to bring their CCA rate more in line with actual depreciation rates. It also introduced the put-in-use rule for property acquired after 1989. According to this rule taxpayers cannot claim CCA, and the investment tax credit is not earned until the earliest of either the year the asset is put in use or the year in which the construction is completed and it is ready for use. *(Allocations du coût en capital)*

Some of the most commonly used classes of Capital Cost Allowance in the oil and gas, and mining industries are:

Class 10 – includes assets such as oil and gas well equipment, drilling rigs (except offshore drilling vessels), certain geophysical equipment, heavy oil upgrading equipment, and certain tangible assets acquired in connection with oil and gas exploration and development not included as a Canadian Exploration Expense or a Canadian Development Expense (see below) (ref: Schedule II of the ITR). Most of the properties that prior to 1988 would have qualified for Class 10 CCA and a write-off rate of 30% per annum, are now Class 41 and are written down at a rate of 25%. *(Catégorie 10)*

Class 24/27 – includes assets acquired for the purpose of preventing, reducing or eliminating water and air pollution. *(Catégories 24/27)*

Class 39 – includes assets manufactured or acquired and used directly or indirectly by the taxpayer in Canada, primarily in the manufacture or processing of goods for sale or lease (ref: Schedule II of the ITR). Under the previous legislation the assets included in this class could be depreciated on a straight-line basis. For assets acquired after 1987, a separate class has been established; the CCA rate for this new class was 40% in 1988, 35% in 1989, 30% in 1990 and 25% on a declining balance basis thereafter. *(Catégorie 39)*

Class 41 – includes assets used in the generation of income from new mines or major expansions of mines (including oil sands deposits) (ref: Schedule II of the ITR). The 1987 Tax Reform reduced the CCA rate for this class from 30% to 25% per year. *(Catégorie 41)*

Depletion:

Earned Depletion Allowance – a deduction from income not exceeding the lesser of either 25% of resource profits for earned depletion purposes or the earned depletion base. The Tax Reform proposals phased out the balance of earned depletion in two stages ending December 31, 1989 (ref: ITR 1201). *(Déduction pour épuisement gagné)*

Earned Depletion Base – an amount equal to 33 1/3% of qualifying prescribed expenditures net of prior years' earned depletion allowances claimed. Such expenditures include integrated oil sands projects, enhanced recovery projects and heavy crude oil upgraders. For 1984, the additions to the earned depletion base also included 10% of Canadian Exploration Expenses incurred on Canada Lands. Tax Reform reduced the prescribed percentage of eligible expenses to be added to the Earned Depletion Base to 16 1/3% (ref: ITR 1205). *(Base de la déducation pour épuisement gagné)*

Frontier Exploration Allowance – a deduction with respect to expenditures incurred between April 1, 1977 and March 31, 1990. The Frontier Exploration Allowance was 66 2/3% of any CEE expense to the extent that the expense exceeded $5 million. The unclaimed balance of such allowance constitutes a corporation's Frontier Exploration base. *(Allocation pour exploration frontalière)*

Mining Exploration Depletion Allowance – a deduction from income not exceeding the less of either 25% of income from any source or the mining exploration depletion base (ref: Draft ITR 1203(1)). *(Déduction à l'égard d'épuisement pour exploration minière)*

Mining Exploration Depletion Base – equal to 33 1/3% of Canadian Exploration Expenses incurred after April 19, 1983, net of prior year mining exploration depletion allowances claims, (ref: Draft ITR 1203(2)). *(Base d'exploration minière pour épuisement)*

Supplementary Depletion Allowance – prior to 1981, expenditures in respect of enhanced oil recovery projects, bituminous sands and heavy oil upgrading were not eligible for earned depletion, but instead were eligible for supplementary depletion. *(Déduction supplémentaire pour épuisement)*

Exploration, Development and Property Acquisition Costs:

Canadian Development Expense (CDE) – any expense, other than a Canadian Exploration Expense (see below), incurred in drilling or completing an oil or gas well prior to the start of production in commercial quantities from the well, or in drilling or converting a well to dispose of waste liquids, or to inject materials to assist in the recovery of petroleum and natural gas from another well. Also included is the cost of drilling or recompleting a well after production in commercial quantities has begun, costs incurred before November 17, 1978 in bringing a mineral resource into production, and the cost of acquiring a mineral resource in Canada other than payments made for the preservation of a mineral resource property ((ref: Paragraph 66.2(5)(a) of the Income Tax Act (ITA)). *(Frais d'aménagement au Canada)*

Cumulative Canadian Development Expense (CCDE) – a 'pool' equal to the aggregate of all previously incurred CDEs, less specified amounts. These specified amounts include amounts of CCDE previously deducted in calculating income for tax purposes, and the aggregate of related federal and provincial government assistance or benefits received (eg. PIP development grants) (ref. Paragraph 66.2(5)(b) of the ITA). *(Frais cumulatifs d'aménagement au Canada)*

Canadian Exploration Expense (CEE) – any expense incurred in determining the existence, location, extent or quality of a deposit of petroleum or natural gas, or a mineral resource in Canada. CEE includes geological, geophysical and geochemical expenses and any expense relating to the first well capable of commercial production that is drilled in an area where hydrocarbons were not previously known to exist. Effective April 1, 1987 several modifications were made to CEE regulations, providing taxpayers with an additional six months following the end of a taxation year to determine whether a well has been abandoned or has resulted in the discovery of a new accumulation. The production criterion has been revised so that production is considered "commercial" only if it is in excess of amounts required for testing or other "prescribed" uses. Special provisions apply for capped or shut-in wells, with no production from an accumulation known to exist as well as for wells being reclassified from CDE. Also, wells costing in excess of $5 million that remain unproductive two years after the completion of drilling receive exploration treatment from the outset. Expenses incurred after November 16, 1978 in bringing a mineral resource into production are also included (ref: Paragraph 66.1(6)(a) of the ITA). *(Frais d'exploration au Canada)*

Cumulative Canadian Exploration Expense (CCEE) – a "pool" equal to the aggregate of all previously incurred CEEs less specified amounts. These specified amounts include amounts of CCEE previously deducted in calculating income for tax purposes and the aggregate of related federal and provincial government assistance or benefits received (e.g. PIP exploration grants) (ref: Paragraph 66.1(6)(b) of the ITA). *(Frais cumulatifs d'exploration au Canada)*

Deduction for CCEE – a principal business corporation (ref: Paragraph 66(15)(h) of the ITA) must deduct its balance of CCEE in computing income for tax purposes to the extent that it has

income. It may not, however, create a non-capital loss (see below) through its claim for CCEE (ref: subsection 66.1(2) of the ITA). A non-principal business corporation and all other taxpayers may deduct 100% of their CCEE pool balance in computing income for tax purposes and may thereby create a non-capital loss (ref: subsection 66.1(3) of the ITA). *(Déduction pour frais cumulatifs d'exploration au Canada)*

Canadian Oil and Gas Property Expense (COGPE) – any expense incurred in the acquisition of any right, license or privilege to explore or drill for or take petroleum, natural gas or related hydrocarbons in Canada, any oil or gas well in Canada, or any rental or royalty computed by reference to the amount or value of production from an oil or gas well in Canada other than a payment made for the preservation of such property (ref: Paragraph 66.4(5)(a) of the ITA). *(Frais à l'égard de biens canadiens relatifs au pétrfole et au gaz)*

Cumulative Canadian Oil and Gas Property Expense (CCOGPE) – a "pool" equal to the aggregate of all previously incurred COGPEs, less specified amounts. These specified amounts include CCOGPEs previously deducted in computing income for tax purposes, and the aggregate of related federal and provincial government assistance or benefits received (ref: Paragraph 66.4(5)(b) of the ITA). *(Frais cumulatifs à l'égard de biens canadiens relatifs au pétrole et au gaz)*

Cumulative Offset Account (COA) – a deduction which allows companies to use write-offs associated with exploration and development expenditures incurred after March 31, 1985 - but which are not immediately claimable under federal corporation income tax - to shelter net production revenues from the Petroleum and Gas Revenue Tax (PGRT) during the PGRT phase-out period. For PGRT purposes, a corporation is entitled to claim a tax credit equal to the lesser of either the PGRT payable or 30% of the amount by which the current COA exceeds the immediately preceding year's COA. If a deduction from COA is made in the calculation of taxable income the amount is subject to a 30% tax. A corporation must claim its remaining COA by the end of its 1994 taxation year; any remaining balance expires after that date. *(Compte compensatoire cumulatif)*

Foreign Exploration and Development Expense (FEDE) – a deduction which is available in respect of exploration, development and property acquisition costs, including payments made for the preservation of a foreign resource property, incurred by a corporation outside of Canada. Where the corporation has foreign production or royalty income in excess of 10% of the corporation's FEDE, the deduction must equal the amount of that income. Where the production or royalty income is less than 10% of the corporation's FEDE, the deduction must equal 10% of the FEDE FEDE carried over a subsequent year is reduced by the amount that was deductible in a previous year, whether or not the amount was actually claimed (ref: Subsection 66(4) of the ITA). *(Frais d'exploration et d'aménagement étrangers)*

Successor Balance – the amount of a successor account that may be deducted by a successor corporation. The Income Tax Act imposes restrictions on the source of income against which successor balances may be deducted. *(Solde successoral)*

Gains and Losses:

Allowable Business Investment Loss – one-half of the loss arising from the arm's length disposition of a capital asset which is a share of a capital stock of a Canadian Controlled Private Corporation (CCPC), a debt owing to the taxpayer by a CCPC, or a debt owing to the taxpayer which the taxpayer has determined to be a bad debt in the year, or shares of any corporation which has become bankrupt during the previous year. The inclusion rates for the allowable investment losses have been changed in the same manner as for taxable capital gains and allowable capital losses. A two-thirds rate is effective for taxation years of Canadian-controlled private corporations commencing after 1987 and for taxation years of other corporations commencing after June 30, 1988. The inclusion rate has been increased to three-quarters for all corporations since 1989 (ref: Paragraphs 38(c) and 39(1)(c) of the ITA). *(Perte déductible au titre d'un placement d'entreprise)*

Allowable Capital Loss – one-half of the loss arising from the disposition of a capital asset where, at the time of disposition, the adjusted cost base of the asset exceeds the proceeds of disposition. With the changes in the inclusion rates from 1987 to 1990, the net capital loss claimed in a year by a corporation will be adjusted depending on any difference in the inclusion rate in the loss year and the year of claim (ref: Paragraphs 38(b) and 40(1)(b) of the ITA). *(Perte en capital déductible)*

Foreign Exchange Gains/Losses – gains or losses resulting from currency fluctuations relative to Canadian currency on assets or liabilities denominated in foreign currency and held by the corporation throughout the year. These may be treated as capital gains or losses or income gains or losses on realization (ref: Interpretation Bulletin 95R). *(Pertes ou gains relatifs aux monnaies étrangères)*

Net-Capital Loss – the aggregate of all allowable capital losses incurred in the year or prior years which have not yet been deductible in calculating income for tax purposes (ref: Paragraph 111(8)(a) of the ITA). *(Perte en capital nette)*

Non-Capital Loss – the aggregate of all business and property losses for tax purposes incurred in the year including allowable business investment losses. To the extent that a non-capital loss is not claimable in a taxation year, it may be carried over to other years. The carryover period extends back three taxation years and forward seven taxation years (ref: Paragraph 111(8)(b) of the ITA). *(Perte autre qu'une perte en capital)*

Taxable Capital Gain – one-half of the gain arising from the disposition of a capital asset. The amount of the gain is measured as the difference between the proceeds of disposition and the adjusted cost base of the asset. The portion of capital gains included in income increased to 66 2/3% in 1988 and 75% in 1990. These rates are effective since June 30, 1988 and January 1, 1990 respectively. For CCPCs the 66 2/3% rate is effective since January 1, 1988 (ref: Paragraphs 38(a) and 40(1) of the ITA). *(Gain en capital imposable)*

Terminal Loss – the loss arising at the end of a taxation year when an unclaimed balance remains in a CCA class and the taxpayer no longer owns any property included in that class (ref: subsection 20(16) of the ITA). *(Perte finale)*

Tax Credits:

Exploration Tax Credit (ETC) – Canadian Exploration Expenses in respect of wells costing more than $5 million earn a refundable ETC at the rate of 25% of such expenses. Expenses for overhead, financing charges, other expenses which are not well-specific, and expenses which attract incentives under the Canadian Exploration and Development Incentive Program and Canadian Exploration Incentive Program are not included. The ETC claimed will reduce the amount of Canadian Exploration Expenses otherwise claimable. For taxation years prior to 1988 a refund of 40% of the credit not otherwise utilized in the year may be claimed for by taxpayers. Only expenses incurred between March 31, 1985 to December 31, 1990 are eligible for ETCs. *(Crédit d'impôt à l'exploration)*

Foreign Tax Credit – a deduction from taxes otherwise payable of an amount equal to the lesser of the business income taxes paid to a foreign government in respect of business activity carried on in that country or the Canadian taxes otherwise payable on that activity. Certain carryover provisions (see below) are available where a corporation is unable to utilize the entire amount of foreign taxes paid in a given year as a foreign tax credit (ref: Subsection 126(2) of the ITA). *(Déduction pour impôt étranger).*

Foreign Tax Carryovers – business income taxes paid in a foreign country which are not fully creditable against Canadian income tax in the particular year may be carried forward for the next five years. No carryback provisions exist. A foreign tax carryforward is creditable against Canadian income tax in the subsequent five-year period only to the extent that the taxpayer has income from any business carried on in that particular country (ref: Paragraph 126(7)(b) of the ITA). *(Report d'impôt étranger)*

investment Tax Credit (ITC) – Tax credits ranging from 7% to 50% of their capital cost are available, depending on the nature of certain capital or depreciable assets acquired in the year, and the location in Canada where those assets are used. ITCs claimed in the year reduce the amount eligible for the Capital Cost Allowance in respect of the asset. Credits earned prior to April 20, 1983 were restricted to a maximum annual claim of $15,000 of tax payable, plus one-half of the amount by which the ITC exceeds $15,000. Credits earned after April 19, 1983 may be claimed without limitation against tax payable or partially refunded where no taxes are payable. In its February 1986 Budget, the federal government announced the phase-out over two years of the general 7% and 10% ITC available in regions other than the Atlantic provinces, commencing in January, 1987. The existing 20% ITC available in the Atlantic region remains, and was extended to the offshore of that region. For taxation years ending after 1987, the ITCs deductible in computing tax payable are limited by an 'annual investment tax credit limit'. The rates of credit for research and development

remain unchanged at 20% and 30% {ref: Section 127 of the ITA}. *(Crédit d'impôt à l'investissement)*

Other Tax Deductions:

Canadian Dividends – taxable funds paid as profit from either a taxable Canadian corporation or a corporation resident in Canada which is controlled by the dividend recipient. A deduction from income equal to the dividend received is allowed {ref: Subsection 112(1) of the ITA}. *(Dividendes canadiens)*

Non-Taxable Foreign Dividends – funds paid as profit out of business income by corporations that are foreign affiliates {ref: Paragraph 95(1)(d) of the ITA}. The dividends are recorded net of foreign withholding taxes. The rules for deductions with respect to dividends is described on Subsection 113(1) of the ITA}. *(Dividendes étrangers non imposables)*

Canadian Exploration and Development Overhead Expenses (CEDOE) – general and administrative costs, indirectly related to exploration and development activities which are capitalized as CCE and CDE expenses and are deducted from resource profits used to determine resource allowance. *(Dépenses de frais généraux d'exploration et de mise en valeur au Canada)*

Federal Tax Abatement – a deduction from tax equal to 10% of the corporation's taxable income earned in a province or territory that would otherwise be payable by a corporation. The deduction recognizes the fact that income tax is levied by provincial governments {ref: Subsection 124(1) of the ITA}. *(Abattement d'impôt fédéral)*

Manufacturing and Processing Profits Deduction – a deduction from tax of 6% of income not eligible for the small business deduction and of 5% of income eligible for the small business deduction that would otherwise be payable on income arising from the manufacturing or processing of goods in Canada. The Tax Reform reduced the difference between the general rate and the rate for manufacturing and processing profits to 2% in 1988; this difference increased 1% annually through 1991, when it reached 5%. For a corporation that qualifies for both the small business deduction and the manufacturing and processing profits deduction, the federal tax rate applicable before surtax, is 12% {ref: Section 125.1 of the ITA}. *(Déduction pour bénéfices de fabrication et de transformation)*

Resource Allowance – a deduction from income equal to 25% of the taxpayer's resource profits. The deduction is allowed in lieu of any deduction for royalties paid to the Crown {ref: ITR 1210}. *(Déduction à l'égard des ressources)*

Employee Categories:

Management Employees – includes presidents, chief executive officers, department managers and other senior members of management. *(Catégorie de gestion)*

Exploration Employees – includes geophysicists, geologists, petroleum engineers and all other employees whose activities relate directly to the exploration function. *(Personnel d'exploration)*

Production Employees – includes production managers, technicians, specialists, resovoir/facilities engineers, and skilled/unskilled workers whose activities relate directly to field or plant operations. Welders, geophysical helpers, battery operators, pumpers, gaugers, and roughnecks are typically classified as production employees. *(Personnel de production)*

Field Production and Plant Employees – includes skilled and unskilled workers, technicians, and specialists whose functions relate directly to field or plant production/operation. Welders, geophysical helpers, battery operators, pumpers, gaugers and roughnecks are typically classified as field/plant production employees. *(Personnel sur le terrain et en usines)*

Other Employees – includes all other specialists and technicians whose functions do not relate directly to exploration, production, or field/plant operations. Clerical, secretarial and other administrative personnel associated with upstream activities and not allocated to exploration, production or field/plant operations would also be defined as 'other employees.' *(Autres personnel)*

Appendix D PMA Terms of Reference

Mandate of the Petroleum Monitoring Agency

The Petroleum Monitoring Agency (PMA) was first established in 1980 under the Inquiries Act and continued under the Energy Monitoring Act (EMA)[1] after February, 1983. The Agency's goals are to provide the Government of Canada and Canadians generally with comprehensive and objective information on, and analysis of, the financial performance of the petroleum industry in Canada. These goals are intended:

(a) to enable the Government of Canada to better plan and develop policies for the management of Canada's energy supplies and resources, and

(b) to provide the Government of Canada and Canadians generally with assurances that these policies are being pursued and are effective.[2]

The Agency's objectives are accomplished by the publication of semi-annual and annual reports based on information received directly from all but the smallest oil and gas companies operating in Canada.

To ensure impartiality of reporting and to maintain credibility among users, the PMA was created as a separate and independent agency, with its Chairman reporting directly to the Minister of Energy, Mines and Resources.

The Act, at subsection 5(1), sets out that energy enterprises shall file, twice a year, returns providing data and information relating to:

(a) ownership and control,
(b) sources and application of funds,
(c) exploration, development, production, processing, refining and marketing,
(d) costs and revenues,
(e) deductions, credits, allowances and carry forwards provided under the Income Tax Act,
(f) the distribution and disposition of its revenues and profits,
(g) resources, reserves and properties,
(h) ownership or interest in any other enterprise,
(i) research and development programs, and
(j) other prescribed matters relating to oil and gas production, refining and marketing, and the funds derived from such activities.

Energy enterprises are defined as individuals, corporations, partnerships, trusts or organizations engaged in the exploration for, development, refining and marketing of oil and gas and having consolidated gross annual revenues or assets in excess of ten million dollars. Regulations prescribe that gross revenues and assets be determined according to accounting standards set out in the Canadian Institute of Chartered Accountants Handbook. Currently only corporations are surveyed by the Agency. Each energy corporation is required to report on a consolidated basis on the activities of corporations it controls or owns.

Sources of Data and Information

The data published in the *Canadian Petroleum Industry Monitoring Report* are aggregate data derived mainly from survey schedules prescribed by regulations.[3] Since part of the Agency's information gathering function falls within areas covered by Statistics Canada, a number of data-sharing agreements were negotiated between the PMA and Statistics Canada under section 12 of the Statistics Act. These agreements reduce the industry's response burden in relation to the Agency's overall information requirements. Information also flows from the PMA to Statistics Canada. Current data sharing agreements relate to:

- ownership and control of energy enterprises,
- capital structure,
- international flows of funds,
- research and development expenditures,
- exploration, development and capital expenditure intentions,
- quarterly corporate financial statistics,
- employment and compensation, and
- capital expenditures and operating costs.

The first seven of these involve transmission of information to the PMA; the last includes information on such subjects as exploration, development and production expenditures, and royalties from the PMA to Statistics Canada.

Data Coverage

Industry gross revenues covered by the PMA through aggregation of returns from 145 reporting enterprises account for 90% of upstream industry revenues as

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(1) S.C. 1980-81-82-83, c. 112.
(2) P.C. 1980-2137.
(3) Currently prescribed schedules are contained in Regulation SOR/90-254

determined by Statistics Canada. The remaining 10% of industry revenues accrues to firms having revenues or assets below the Agency's current reporting thresholds. The high degree of coverage of industry revenues and the inclusion of all but the smallest energy enterprises enable conclusions drawn from Agency aggregates to be applied to the industry as a whole. Degrees of coverage of other performance indicators are presented below.

Comparison of PMA Data with 1990 Industry Aggregates
Percentage of industry aggregates covered

Upstream Production Revenues	90
Upstream Expenditures in Canada	91
Production Volumes:	
Crude Oil and Liquids	88
Marketable Natural Gas	93
Refined Product Sales Volumes	96

Comparison of Survey Results – PMA vs. Statistics Canada

The petroleum industry's financial performance is regularly compared to that of other sectors of the economy using aggregate data from Statistics Canada. Net income and rates of return information provided in Chapters 1 and 2 of this report will differ slightly from the results shown in Chapter 3 because the latter is based on Statistics Canada data.

While petroleum industry data from Statistics Canada covers a greater number of companies than the PMA survey, it excludes government business enterprises as well as the foreign activities of Canadian petroleum companies. The PMA survey covers the global activities of petroleum companies operating in Canada, including Crown corporations, provided these companies meet the minimum requirements in terms of assets and revenues. In addition, though Statistics Canada may make adjustments to company reported data, the PMA reports only on the industry's activities as they are submitted. for example, in 1983, a write-down of assets of $1 billion was treated as 'extraordinary' by Statistics Canada, whereas the Agency accepted the entry as 'ordinary' as reported by the company.

Regarding rates of return, both agencies determine return on capital employed by adding the after-tax portion of interest on long-term debt back to net income. While the PMA produces this calculation for each company individually, using the statutory tax rate on that portion of interest expense which would increase net income, the add back on Statistics Canada aggregate industry results must rely on the average effective tax rate, i.e. current taxes as a percentage of net income before taxes.

Ownership and Control Determination

The PMA publishes information annually on the level of Canadian ownership and control of the oil and gas industry in Canada. The methodology and sources of information underlying its analyses are summarized below.

In the process of control determination, the Agency has based its definition on whether Canadian or foreign shareholders have potential control over a reporting enterprise's overall operations. Cost Control is a contractual right conferred upon a person--or group of persons--to direct, within the limitations of relevant statutes in the present or at some future date, the affairs or management of a company on a day to day basis or otherwise, usually through the appointment of a majority of a board of directors. Control is not to be confused with managerial responsibility for the firm. The concept of control emerged in order to recognize the separation in modern corporations between managers and shareholders. Shareholders assert control over management through the board of directors and shareholders' meetings.

Control that is exercised by, for instance, the nomination and election of the majority of the directors is active control. Control is just as real when the shareholder with a continuing right to intervene chooses instead--for whatever reason--not to exercise that right. The unexercised option to take active control is called potential control. For the purposes of the PMA, the two types of control--active and potential--are equivalent. Both types are called control. The Canadian Business Corporations Act similarly embraces the concept of potential control within its definition of control which refers to sufficient votes "if exercised, to elect a majority of the directors of the body corporate."

While control is generally based on the ownership of 50% or more of voting shares, it is possible for control to be exercised with a smaller ownership block. A person who owns at least 51% of the voting shares is said to have *de jure* control. One who owns less than 50% of the voting shares, but is able to alter the composition of the board of directors and/or management, is said to have *de facto* control. Statistics Canada assigns

de facto control of a public corporation, for the purposes of the *Corporations and Labour Unions Return Act* (CALURA), to a person owning at least 20% of the outstanding voting shares when no other two shareholders together own as much as 20%.(1) The PMA methodology for determining control in such cases is consistent with that used by Statistics Canada. *De facto* control may also be conferred upon a person, or group of persons, owning less than 51% of the voting shares of a public or private corporation through several other mechanisms:

(a) *Blocks of voting shares* – two or more shareholders whose holdings together total more than 50% of all shares and who generally act in concert.

(b) *A shareholders' agreement* – an agreement among some or all shareholders to vote or act in certain ways in various contingent circumstances, especially in relation to naming directors.

(c) *Options* – a minority shareholder enjoys the right at any time to acquire additional voting shares to raise his holdings to 51% or more of the outstanding voting shares.

(d) *Personal Relationships* – where two shareholders are related by blood relationship, marriage or adoption, they may be deemed to constitute a voting group.

(e) *Interlocking Directorships* – when corporation A owns at least a minimum percentage of voting shares of corporation B, and is the single largest minority shareholder of corporation B, and both corporations share a large number of common directors, corporation A is said to control corporation B.

For purposes of determining the industry wide level of control, 100% of the relevant yardstick of the controlled company is assigned to the appropriate control category. Thus if the company is effectively controlled by non-residents, for statistical purposes, 100% of its activities are assigned to the foreign-controlled sector regardless of the percentage ownership of voting rights by non-residents. To illustrate, several integrated companies included in this report, though all foreign controlled, have varying degrees of Canadian ownership (up to 30%). However, when measuring the level of control, the entirety of their relevant corporate activities is assigned to the appropriate control sector.

In the case of ownership, that percentage of the relevant yardstick which represents the beneficial ownership of formal equity by non-residents is assigned to the foreign-owned category, while that of Canadian residents is assigned to the Canadian-owned category.

The most commonly used yardsticks are upstream or total petroleum-related revenues (upstream plus downstream). Ownership and control are generally measured on gross revenues recognizing that these best reflect economic activity and that they are a stable proxy for net economic benefits over time. For example, the deduction of royalties from gross petroleum revenues would have little or no impact on the relative distribution of revenue between Canadian and foreign owners.

Other measurement bases such as assets or capital employed do exist but suffer from the deficiencies of relying upon historical 'book' values rather than current market value, and of being subject to the different accounting techniques used in the petroleum industry such as the full cost and successful efforts methods.

The Agency has access to ownership and control information collected under CALURA from those enterprises which report under the EMA. CALURA requires detailed disclosure of ownership information from all owners of blocks of shares equal to or greater than 5% of total voting shares. Should a reporting energy enterprise fail to file a timely return under CALURA, Regulation SOR/85-328 authorizes the Agency to obtain the ownership and control information directly.

Inter-period Comparability of Results

The *Canadian Petroleum Industry Monitoring Report* presents comparisons of the current reporting period's results with those of previous comparable periods. Such comparisons are sensitive to changes in the list of reporting companies defined as the 'industry', in its analytic groups, i.e. integrateds, refiners, and oil and gas producers, and in the control status of reporting enterprises. To permit valid inter-period comparisons, the

(1) *The Ownership, Control, and Country of Control of Corporations*, Statistics Canada, June 4, 1987, p. 8.

Agency consistently fixes industry group membership and control according to the reported information for the current period, and imposes that membership and control on results for the prior reporting period. Where data covering more than two years are presented, the group membership and control is deemed to be that prevailing at the time of reporting, except for the immediately preceeding period.

Lists of reporting enterprises (i.e. corporations with more than $10 million in assets or sales) are updated each reporting period. Newly qualifying enterprises are added to the industry aggregates and the respective group only when results for two comparable reporting periods are available. Occasionally, enterprises leave the industry during the current period, by acquisition or wind-up. Prior period results for both the industry and the group presented in the current period's report will reflect the loss of the former reporting enterprise, as enterprise results are excluded from the current and prior period aggregates. Should the departure result from acquisition by a reporting enterprise, the acquired enterprise's prior period results are added to those of the acquiring enterprise regardless of whether the acquired enterprise was in the same analytic group as the acquisitor.

Divestitures or acquisitions by reporting enterprises during the current period may result in an enterprise satisfying the inclusion criteria of an analytic group other than that to which it has been assigned in the prior period's *Monitoring Report*. For example, where an integrated group member divested itself of its downstream operations during the current period, it would be included in either the senior or junior producer group, depending upon the facts of the matter, for the current period and with that group's aggregate results for the corresponding prior period. It is important to note that all the divesting enterprise's prior period assets and revenues — regardless of the segment of operations — are transferred to the current period analytic group to establish prior period analytic group aggregates.

Similar adjustments to industry and analytic group aggregates are made in cases where ownership switches from Canadian to foreign or vice versa. The current period nationality of ownership determines that of the prior period for purposes of inter-period comparisons. However, in that part of the annual *Monitoring Report* dealing with ownership and control, the analysis takes into account the changes in the control of the reporting companies as they occur.

Appendix E Reporting Energy Enterprises

Alberta Energy Company Ltd.
Alberta Oil Sands Equity
Altana Exploration Company
Altex Resources Ltd.
Amax Petroleum of Canada Inc.
Amerada Hess Canada Ltd.
American Eagle Petroleums Ltd.
American Trading and Production Corporation
Amoco Canada Petroleum Company Ltd.
Anadarko Petroleum of Canada Ltd.
Anderson Exploration Ltd.
AT&S Exploration Ltd.
ATCOR Ltd.
Atlantis Resources Ltd.
Barnwell of Canada, Limited
Beau Canada Exploration Ltd.
Bow Valley Industries Ltd.
Bowtex Energy (Canada) Corporation
BP Canada Inc.
Buttes Resources Canada, Ltd.
Cabre Exploration Ltd.
Canada Northwest Energy Limited
Canadian '88' Energy Corp.
Canadian Conquest Exploration Inc.
Canadian Hunter Exploration Ltd.
Canadian Jorex Limited
Canadian-Montana Gas Company Limited
Canadian Occidental Petroleum Ltd.
* Canadian Turbo Inc.
Cancarb Gas Services Limited
Chauvco Resources Ltd.
* Chevron Canada Limited
Chevron Canada Resources Limited
Chevron Standard Limited
CIC Industrial Interests Inc.
Cimarron Petroleum Ltd.
Claude Resources Inc.
CN Exploration Inc.
Co-Enerco Resources Ltd.
Coho Resources Limited
Colonial Oil & Gas Limited
Columbia Gas Development of Canada Ltd.
Conoco Canada Limited
Consolidated Norex Resources Corp.
Conwest Exploration Company Limited
Corexcana Ltd.
CS Resources Limited
Czar Resources Ltd.
DEKALB Energy Canada Ltd.
Discovery West Corp.
Dorset Exploration Ltd.
Dynex Petroleum Ltd.
Encor Inc.
Enerplus Resources Corporation
Enron Oil Canada Ltd.
Excel Energy Inc.
* Federated Co-operatives Limited
Forest Oil Corporation (Canada Division)
Gardiner Oil & Gas Limited
Government of Canada
Gulf Canada Resources Limited
Hamilton Brothers Canadian Gas Company, Ltd.
Harvard International Resources Ltd.
Home Oil Company Limited
* Husky Oil Ltd.
* Imperial Oil Limited
Intensity Resources Ltd.
Inuvialuit Petroleum Corporation
Inverness Petroleum Ltd.
* Irving Oil Limited
J.M. Huber Corporation
Joss Energy Ltd.
Kerr-McGee Canada Ltd.
Koch Exploration Canada, Ltd.
LASMO Canada Inc.
LASMO Nova Scotia Ltd.
LL&E Canada, Ltd.
Lone Pine Resources Ltd.
Luscar Ltd.(Oil & Gas Division)
Maligne Resources Limited
Mannville Oil & Gas Ltd.
Mark Resources Inc.
MLC Oil and Gas Ltd.
Mobil Oil Canada, Ltd.
* Mohawk Oil Company Limited
* Moose Jaw Asphalt Ltd.
Morgan Hydrocarbons Inc.
Morrison Petroleums Ltd.
Mosbacher Holding Company
Murphy Oil Company Ltd.
NAL Resources Ltd.
* NewGrade Energy Inc.
* Newfoundland Processing Limited
Norcen Energy Resources Limited
North Canadian Oils Limited
Northstar Energy Corporation
Norwich Resources Canada Ltd.
Nova Scotia Resources Limited
* Novacor Chemicals (Canada) Ltd.
Novalta Resources Inc.
Numac Oil & Gas Ltd.
Ocelot Industries Ltd.
Omega Hydrocarbons Ltd.
OMV (Canada) Ltd.
Opinac Exploration Limited
Orbit Oil & Gas Ltd.
Paloma Petroleum Ltd.
Pan-Alberta Resources Inc.
Panarctic Oils Ltd.
PanAtlas Energy Inc.
PanCanadian Petroleum Limited
Pancontinental Oil Ltd.
Paragon Petroleum Corporation
Paramount Resources Ltd.
* Parkland Industries Ltd.
Pecten Canada Limited
Pembina Corporation
Penn West Petroleum Ltd.
Pennzoil Petroleums Ltd.
* Petro-Canada
Petrorep (Canada) Ltd.
Phillips Petroleum Canada Ltd.
Phillips Petroleum Company Western Hemisphere
Phillips Petroleum Resources, Ltd.
Pinnacle Resources Limited
Poco Petroleums Ltd.
Quintana Exploration Canada Ltd.
Ranchmen's Resources Ltd.
Ranger Oil Limited
Renaissance Energy Ltd.
Rife Resources Ltd.
Roan Resources Ltd.
Royal Trust Energy Corporation
Saskatchewan Oil and Gas Corporation
Sceptre Resources Limited
* Shell Canada Limited
Star Oil & Gas Ltd.
Summit Resources Limited
* Suncor Inc.
Tarragon Oil and Gas Limited
Telesis Oil and Gas
Texaco Canada Petroleum Inc.
Total Petroleum Oil and Gas Ltd.

* Denotes companies included in group of 'Integrateds and Refiners.' All other companies belong to the category of 'Oil and Gas Producers.'

Trilogy Resource Corporation
Triton Canada Resources Ltd.
Ulster Petroleums Ltd.
* Ultramar Canada Inc.
Union Pacific Resources Inc.
United Tri-Star Resources Ltd.
Unocal Canada Limited
Voyager Energy Inc.
Wainoco Oil Corporation
Webb International Minerals, Inc.
Westar Petroleum Ltd.
Westcoast Petroleum Ltd.
Wintershall Canada Ltd.